

Consulting • Engineering • Remediation

July 18, 1997

Sextant Hill 90 Route 6A Sandwich, MA 02563-1866 (508) 888-3900 FAX (508) 888-6689 http://www.ensr.com

Mr. Michael Young
Department of Environmental Conservation
Sites Management Section
Hazardous Materials Management Division
103 South Main Street-Sewing Building.
Waterbury, Vermont 05671-0405

ENSR File: 4118-005 (Formerly 16-03-0217)

RE:

Interim Summary Report

Allen Residence East St. Johnsbury

Dear Mr. Young:

ENSR has been retained by Kris Larsen, Ltd. to conduct the environmental oversight of the reported release of fuel oil at the above-referenced site. The site is a residential property in a residential area with private water supply wells. The property is owned by Tom and Ami Allen. This report presents information regarding all remedial activities to date which is required for the Interim Summary Report.

#### SITE BACKGROUND

#### **Initial Response**

On December 6, 1996, a release of fuel oil was reported at the site, when fuel oil was observed in the foundation drain pipe effluent located next to Old Concord Road, approximately 125 feet downgradient of the house. A 500-gallon fuel oil underground storage tank (UST) was the suspected source of contamination. Refer to Figure 1 for the site location and Figure 2, Site Plan for the UST location. At that time, Griffin International, Inc. (Griffin) of Williston, Vermont was retained by Mr. and Mrs. Allen to oversee the removal of the UST.

On December 6, 1996, Great Northern Environmental Services of Bath, New Hampshire conducted the UST removal under Griffin's Supervision. According to Griffin's UST Removal Inspection Report, dated December 13,1996, the tank appeared to be in good condition. Observations indicate that the release of fuel oil occurred in the product piping beneath the concrete slab of the house.



An over/under dam was constructed at the foundation drain pipe effluent to contain free floating product. Water was allowed to flow past the dam, while free floating product was contained behind it. The water flows to a culvert beneath Old Concord Road to a ditch which discharges to the Moose River, approximately 300 feet downgradient of the over/under dam.

On December 22,1996, Mr. Allen reported the appearance of petroleum stains on the basement floor. Vapor concentration in the vicinity of the stains was 30 parts per million (ppm) and 3.1 ppm in the breathing zone. Plastic sheeting was applied in the area of staining to reduce vapor concentrations in the basement.

A one horsepower regenerative blower was temporarily installed in the garage to reduce the infiltration of vapors into the house. The vacuum side of the blower was connected to the floor drains in the basement to create a negative pressure relative to the indoor pressure. The blower effluent was discharged untreated into the atmosphere.

The site was visited a minimum of every two days to check vapor levels in the basement, apply additional plastic sheeting as needed, and to maintain the over/under dam. Observations indicated that the area of staining on the basement floor was increasing

On January 7, 1997, three holes were cored through the basement floor to observe soil and liquid located below. No further information relative to these holes was provided to ENSR for the production of this report.

On February 5, 1997, a soil gas survey was conducted of the soils located below the basement of the house. Twelve holes were cored through the basement floor and photo-ionizing detector (PID) readings were recorded. PID readings ranged from zero ppm up to 220 ppm. The highest concentrations occurred in the vicinity of the UST supply lines and the fire place. Figure 3 presents the locations and observations of the February 5, 1997 event.

#### SITE REMEDIATION ACTIVITIES

Remediation activities commenced in February 1997.



#### Soil removal and system installation

In order to access the contaminated soil, the basement floor of the house was saw cut and removed. Impacted soils were hand dug and removed from the basement. The soils were placed in a plastic lined roll-off dumpster prior to removal from the site. A total of 210.83 tons of fuel oil impacted soil was removed from the site. The soil was transported by Great Northern Environmental and disposed by MTS of Littleton, New Hampshire. Soil disposal analytical reports and Bills of Lading (BOL) are presented as Attachment I.

A groundwater treatment and soil vapor extraction (SVE) system was installed under ENSR supervision between March 12, 1997 and March 14, 1997. As-built plans of the groundwater treatment and SVE systems are presented on Figure 4, Layout Plans.

#### Monitoring Well Installation

On May 23, 1997, ENSR representatives supervised the installation of four groundwater monitoring wells on-site by T&K Drilling, Inc. of Troy, New Hampshire. The monitoring wells were installed to determine extent of oil contamination and groundwater flow. Refer to Figure 2 for well locations. Soil boring/monitoring well construction logs are presented in Attachment II.

During advancement of the soil borings, soils were field screened for the presence of volatile organic compounds (VOCs). No VOCs were detected during the monitoring well installation. Soil samples were collected at the lower extent of the vadose zone in each boring and submitted to Spectrum Analytical, Inc. (Spectrum) of Agawam, Massachusetts following chain-of-custody procedures. Spectrum Analytical, Inc. is a Vermont-certified laboratory. The soil samples were analyzed for total petroleum hydrocarbons (TPH) by Modified EPA Method 8100. No TPH was detected in the soil samples collected. The analytical results and chain-of-custody documentation are presented in Attachment III.

#### Monitoring Well Sampling and Survey

On May 30, 1997, ENSR representatives sampled and surveyed the four on-site monitoring wells. Groundwater samples collected from monitoring wells MW-1 through MW-4 were submitted to Spectrum for laboratory analysis following chain-of-custody protocol. The groundwater samples were analyzed for EPA Method 602. No VOCs were



detected in the groundwater samples collected from monitoring wells MW-1 through MW-4. The laboratory analytical report and chain-of-custody documentation are presented in Attachment IV.

Figure 5 presents the inferred groundwater flow direction on-site.

#### **Petroleum Drainage Path Investigation**

On May 30, 1997, ENSR supervised the removal of approximately 26 tons of fuel oil impacted soil from the drainage ditch along Old Concord Road. Great Northern Environmental Services transported the soil to MTS in Littleton New Hampshire. Figure 2 indicates the location of the excavations. Bill of Lading and field notes showing the location and extent of excavation are presented in Attachment V.

Soils were field screened for VOCs. PID readings ranged from zero to 22 ppm during the removal. Soil excavation ceased when no odors or PID readings were detected. Composite samples were taken from the side walls and bottom of the excavations. The soil samples were labeled EXC-1 and EXC-2 and were submitted to Spectrum, for TPH analysis by EPA Method 8100. Analytical results and chain of custody are presented in Attachment VI.

No TPH was detected in the composite samples taken at the extent of excavation #1. TPH was detected at 95 ppm and characterized as motor oil at the extent of excavation #2. Based on the fact that the TPH was characterized as motor oil and the proximity of the excavation to the road, it is ENSR's opinion that the soil impacted from the fuel oil spill at the Allen residence has been removed and that the remaining TPH is due to road runoff.

#### **Supply Well Monitoring**

Pursuant to the Vermont Department of Environmental Conservation (VTDEC) requests, ENSR is currently sampling the adjacent resident's supply wells once a month. The samples are analyzed for VOCs by EPA Method 602. Table 1 is a summary of the supply well analytical results.



No VOCs have been detected in the samples analyzed from the adjacent supply wells. The analytical results and chain-of-custody documentation for the supply well sampling events are presented in Attachment VII.

#### **Groundwater and Soil Vapor Extraction System Monitoring**

On March 25, 1997 a VTDEC 1272 Discharge Order was issued to Tom and Ami Allen, allowing the discharge of treated groundwater to the Moose River. ENSR is collecting groundwater samples before and after each carbon adsorption canister on-site twice a month to comply with the discharge order. Samples are analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 602 and TPH by EPA Method 418.1. ENSR also provides the VTDEC with monthly monitoring reports. At this time, three monthly reports, dated May 14, June 9, and June 27,1997, have been submitted to the VTDEC. Analytical reports and chain-of-custody documentation are presented with the monthly monitoring reports.

During the bi-weekly sampling events, the groundwater treatment system and SVE system operations are checked and serviced as needed. The influent and effluent data gathered from the groundwater and SVE systems to date are presented in Tables 2 and 3, respectively.

#### **Future Site Activities**

Future remedial activities include the disposal of spent carbon absorption units, the continued sampling of the groundwater treatment and SVE systems, and the continued sampling of the on-site monitoring wells and surrounding supply wells.

ENSR anticipates the operation of the groundwater and SVE systems for approximately one year. At that time, ENSR will consult the VTDEC and provide a recommendation for either continued system operation or site closure.

During the year of anticipated system operation, ENSR will continue to provide the VTDEC with monthly system monitoring reports and the appropriate documentation for ongoing remedial actions.



Please do not hesitate to call with any questions or comments.

Yours truly,

**ENSR** 

Joseph P. Salvetti, LSP

Senior Associate

Donald C. McFadden Environmental Scientist

JPS:DCM/jtc

Attachments

cc: Don Rossini

Tom and Ami Allen



**TABLES** 



#### Table 1 SUPPLY WELL ANALYTICAL RESULTS Allen Residence East St. Johnsbury, Vermont

Date	Allen VOCs <sup>(1)</sup>	Brisson VOCs	Ferrin VOCs	Conly VOCs	Rice VOCs
12/6/96	ND <sup>(2)</sup>	NS (3)	NS	NS	NS
12/10/96	ND	ND	ND	ND	ND (4)
1/15/97	ND	ND	ND	ND	ND
3/18/97	ND	ND	ND	ND	ND
5/15/97	ND	ND	ND	ND	ND
6/12/97	ND	MD	ND	ND	ND

- VOCs = Volatile Organic Compounds analyzed by EPA Method 602.
   ND = Not detected above laboratory detection limits.
- 3. NS = Not sampled.
- 4. Sampled on 12/12/96.

#### Table 2 HISTORICAL GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA Allen Residence East St. Johnsbury, Vermont

Parameter	Influent	4/2/97 Midfluent	Effluent	influent	4/15/97 Midfluent	Effluent	influent	4/29/97 Midfluent	Effluent	Discharge Requirements (µg/L)
VOCs <sup>(1)</sup> (μg/L) Benzene	37.2	ND <sup>(2)</sup>	ND	5.7	ND	NĐ	11,1	ND	ND	5
Ethylbenzene	11.4	ND	ND	3.8	ND	ND	6.4	ND	ND	NDR <sup>(3)</sup>
Toluene	119	ND	ND	19.7	ND	ND	53.4	ND	ND	NDR
Xylenes	61	ND	ND	22.7	ND	ND	39.3	ND	ND	NDR
Total BTEX	228.6	ND	ND	70.9	ND	ND	110.2	ND	ND	50
MTBE	ND	ND	ND	<10	ND	ND	ND	ND	ND	NDR
TPH <sup>(4)</sup> (mg/L)	0.90	ND	ND	1.49	ND	ND	0.84	ND	ND	1(mg/L)

Parameter	Influent	5/15/97 Midfluent	Effluent	Influent	5/30/97 Midfluent	Effluent	Influent	6/12/97 Midfluent	Effluent	Discharge Requirements (µg/L)
VOCs (μg/L) Benzene	ND	NĐ	ND	2.2	ND	ND	NS <sup>(5)</sup>	NS	ND	5
Ethylbenzene	ND	NĐ	ND	ND	ND	ND	NS	NS	ND	NDR
Toluene	ND	ND	ND	8.4	ND	ND	NS	NS	ND	NDR
Xylenes	11	ND	В	11.6	ND	ND	NS	NS	ND	NDR
Total BTEX	11	ND	ND	22.2	ND	ND	NS	NS	ND	50
MTBE	<10	ND	ND	ND	ND	ND	NS	NS	ND	NDR
TPH (mg/L)	1.10	ND	ND	NĐ	ND	ND	NS	NS	ND	1(mg/L)

#### Notes:

- VOCs = Volatile organic compounds analyzed by EPA Method 602.
   ND = Not Detected above laboratory detection limits.
- 3. NDR = No Discharge Requirement.
- 4. TPH = Total petroleum hydrocarbons analyzed by EPA modified Method 8100.
- 5. NS = Not Sampled due to system failure.



#### Table 3 HISTORICAL SVE SYSTEM DATA Allen Residence East St. Johnsbury, Vermont

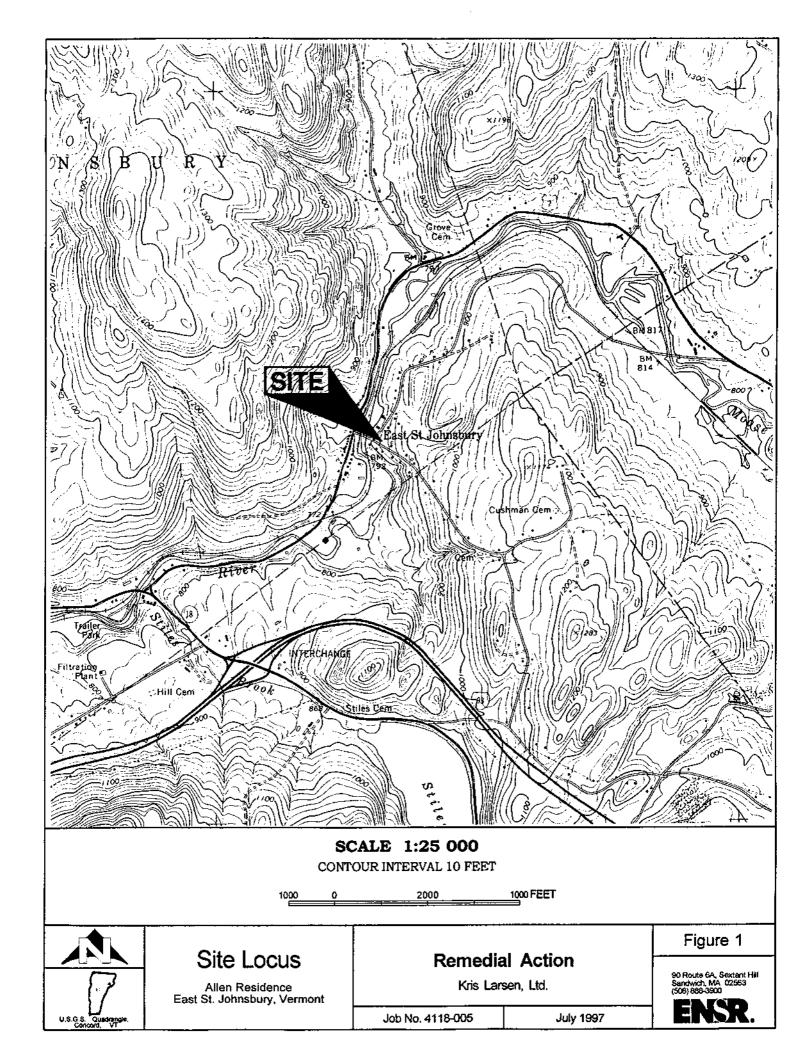
Date	Influent*(ppm)	Effluent(ppm)
4/02/97	8.4	0.6
4/15/97	NDA	NDA
4/29/97	3.6	0.8
5/15/97	10.0	BDL
5/30/97	8.0	BDL
6/12/97	9.0	BDL

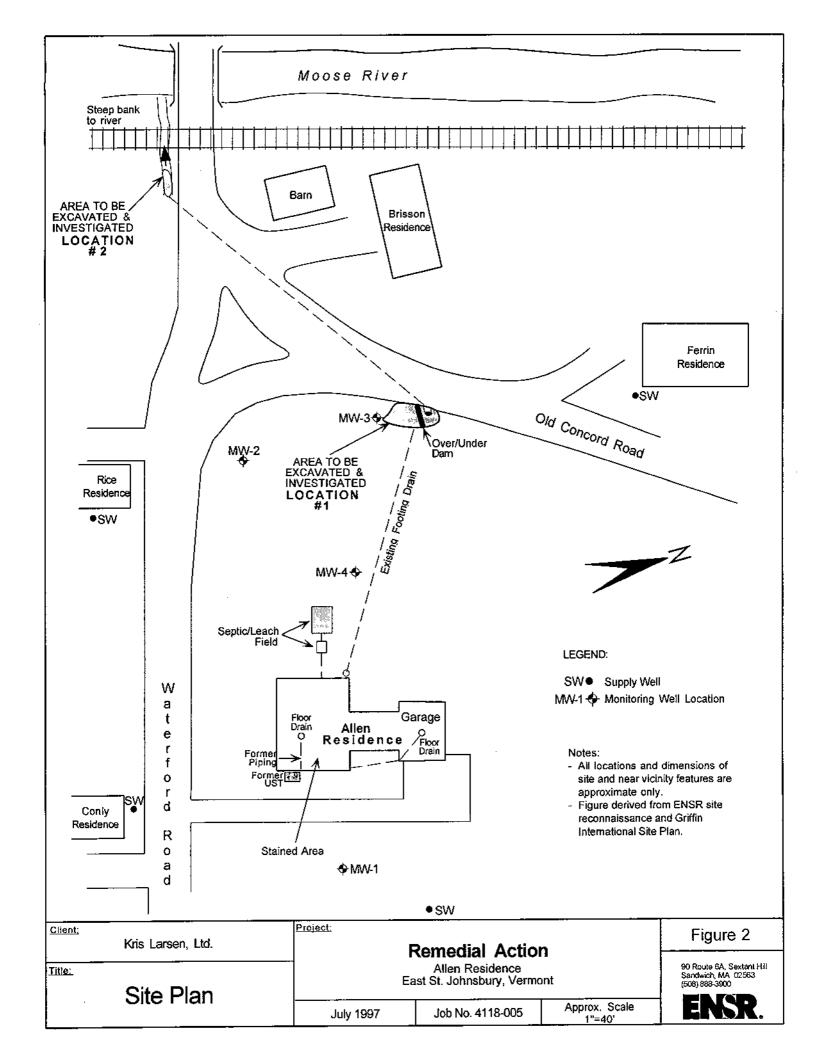
#### Notes:

\* = combined influent from all five SVE legs. ppm = part-per-million. NDA = No data available.



**FIGURES** 



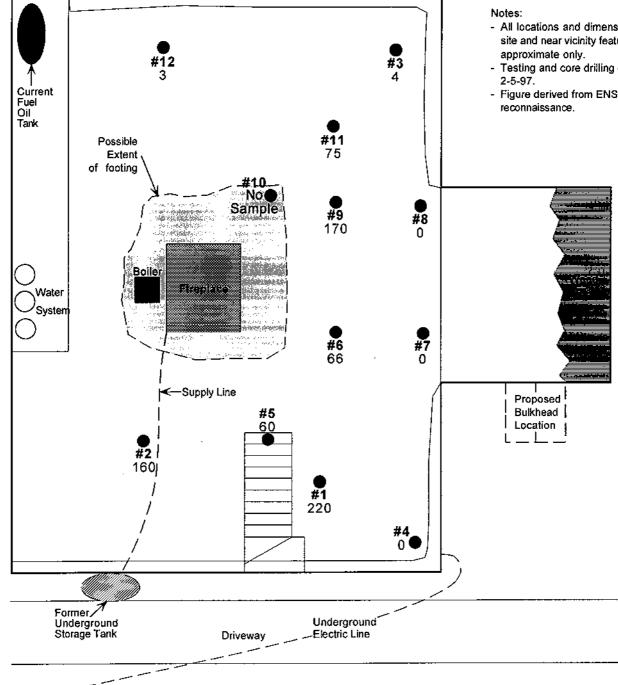






Hole Location #1 Hole Number 220 PID Reading

- All locations and dimensions of site and near vicinity features are
- Testing and core drilling done
- Figure derived from ENSR site



Client: Kris Larsen, Ltd. Title:

Coring Data

**Remedial Action** 

Allen Residence East St. Johnsbury, Vermont

July 1997

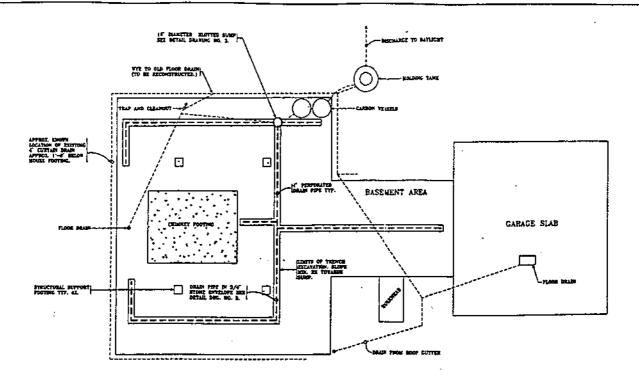
Project:

Job No. 4118-005

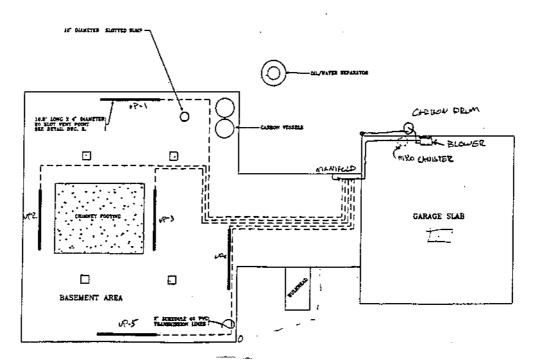
NOT TO SCALE

Figure 3

90 Route 6A, Sextant Hill Sandwich, MA 02563 (508) 888-3900



## RECOVERY TRENCH LAYOUT PLAN SCALE: 1"=10"



SVES PIPING LAYOUT PLAN
SCALE: 1'=10'

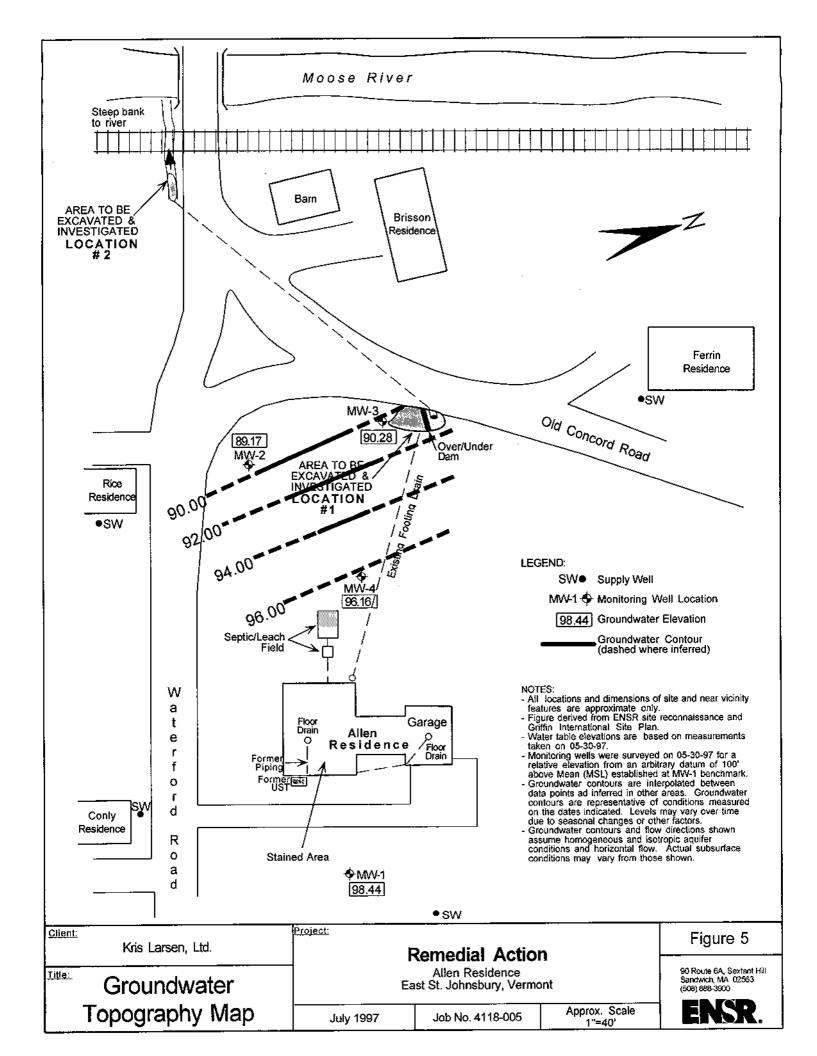
Client:
Kris Larsen, Ltd.

Remedial Action
Allen Residence
East St. Johnsbury, Vermont

Figure 4

90 Route 6A, Sextant Hill
Sandwich, MA 02563
(508) 888-3900

ENST.





#### ATTACHMENT I

Laboratory Analytical Report for Soils

(For Disposal Requirements)



State Geologist

1-800-253-0191

Department of Fish and Wildlife

1-800-253-0195 Voice>TDD

Department of Forests, Parks and Recreation

RELAY SERVICE FOR THE HEARING IMPAIRED

Department of Environmental Conservation

#### State of Vermont

AGENCY OF NATURAL RESOURCES Department of Environmental Conservation Waste Management Division 103 South Main Street/West Office Building Waterbury, Vermont 05041-0404 Phone: (802) 241-3888

RECEIVED MAR 0 4 1997

Fax: (802) 241-3296

March 3, 1997

**ERIK SANDBLOM GRIFFIN INTERNATIONAL** P.O. Box 943 WILLISTON, VT 05495

Allen Residence, St. Johnsbury, Vermont, Site # 97-2100. RE:

Dear Mr. Sandblom:

The Sites Management Section (SMS) has received the letter of acceptance of up to 200 tons of fuel oil contaminated soil for thermal treatment at the MTS facility located in Littleton, New Hampshire. The SMS approves this method of treatment of the soil from the Allen residence. Once the soils have been treated, a certificate of destruction should be forwarded to the SMS for all soils transported to the facility.

If you need further information, please feel free to contact me at the phone/fax number or address identified at the top of the page.

Sincerel

Michael W.

Hazardous Material Specialist Sites Management Section

MWY/petro/2100soil.app



P.O. BOX 359, EPSOM, NH 03234 (603) 798-4557 FAX (603) 798-5641

RECEIVED MAR 0 3 1997

February 27, 1997

Mr. Erik Sandblom Griffin International P.O. Box 943 Williston, VT 05495

Dear Erik.

This letter is in reference to a soil stockpile at a site referenced as Allan Residence in E. St. Johnsbury, VT. MTS has reviewed and approved the analysis for this site submitted to our office on 2-27-97. It is my understanding the the soil contains #2 fuel oil and was generated from a leaking pipe at a residence. Up to 200 tons of the material stockpiled at this site may be transported to MTS's Littleton, NH facility.

If you have any questions or require any additional information, don't hesitate to contact me.

Sincerely,

MTS Environmental, Inc.

Lisa M. Fauteux General Manager

File 12964964

Ficket No 00**0116**694 MTS, INC. 69 DOVER ROAD P.O. Box 359

Date :03/03/97 In :14.03.53 Out :14,04,10

Boale 神母t

EPSOM NH Ø3234

Customer :1164

SRIFFIN INTERNATIONAL

PO BOX 943

WILLISTON VT 05495

Order No :2611641

Load No:

Total Tn : 23.22

Miles :

13625 Truck Out-bound

Gross

77750.00Lbs(k)

Tare

31300.00Lbs(k)

MO.2 NO.2

.... 46450.00Lbs

23,22Tns

WEIGH MASTER (BILL)

DRIVER \_\_\_\_\_

SOILS CONTAINING VIRGIN PETROL	EUM QNESU964
BILL OF LADING # Nº 13625 PROJECTAU	THORIZATION # 26:1164:1 DAT 2/28/97
AUTHORIZED SIGNATURE:	
FACILITY:  MTS, INC.  RT. 4, 9, & 202  CHICHESTER, NH:  (603) 798-4557	TRANSPORTER NAME/ADDRESS:  GREAT NORTHERN ENV. SERV. P. O. BOX 175 BATH, NH 03740
PLANT LOCATION: LITTLETON, NH	TELEPHONE(603) -747-3904
GENERATOR NAME/ADDRESS:  MR TOM ALLEN & MRS, AMY ALLEN P. 0. BOX 4027 ST JOHNSBURY, VT 05819  CONTACT PERSON:	SITE OF GENERATION:
TELEPHONE: (802) -748-6221	
SOIL DESCRIPTION:  GASOLINE KEROSENE NO. 2 OIL NO. 4 OIL NO. 6 OIL OTHER	QUANTITY: WT(TONS) VOL(CUYOS)  TOTAL PROJECTED 200  SHIPPED TO DATE A  THIS LOAD (EST.)  REMAINING TO BE SHIPPED
CONSULTANT: (If Applicable)  ORIFFIN INTERNATIONAL  TELEPHONE:	ADDRESS: WILLISTON, VT 05495
ANALYSIS ATTACHEDYESNO VOLATILES (AS BENZENE)PPM	TOTAL PETRO. HYDROCARBON(TPH)PPM
GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not cont of hazardous waste as defined in 40CFR260 and applicable.	information provided is a true representation of the
STATE	DATE CASE #
STATE	DATE
TRUCK/TRACTOR REGISTRATION TRAILER REGIST TO C 80  TRANSPORTERS SIGNATURE:  RECEIVING CLERK SIGNATURE:  ARRIVED 9:45 AM/PM  TRUCK WT:FULL 27750 TICK  EMPTY 3/300 23.22 TICK	DATE CASE #
TRUCK/TRACTOR REGISTRATION  TRANSPORTERS SIGNATURE:  RECEIVING CLERK SIGNATURE:  ARRIVED 9:45 AM/PM  TRUCK WT: FULL 2750 TICK  EMPTY 3/300 23.22 TICK	DATE CASE #
TRUCK/TRACTOR REGISTRATION  TRANSPORTERS SIGNATURE:  RECEIVING CLERK SIGNATURE:  ARRIVED 9:45 AM/PM  TRUCK WT: FULL 22750 TICK  EMPTY 3/300 23.33 TICK  NET 46456 TRUCK RECEIVING RECEIVIN	DATEDATE

Ticket No 000116695

MTS, INC. 69 DOVER ROAD P.O. Box 359

Date :03/03/97 In :14.04.47 Out :14.05.23

Scale #01

PO BOX 943

Customer :1164

GRIFFIN INTERNATIONAL

WILLISTON VT 05495

EPSOM NH 03834

Order No :2611641

Load No :

Total Th :

38, 19

Miles

13628

Truck Dut-bound

Gross 61150.00Lbs(k)

Tare

31200.00Lbs(k)

NO.2 NO.2

Net

29950.00Lbs

14.97Tns

WEIGH MASTER (BILL)

1	DUL OF LADING	1-16.
`*	BILL OF LADING OF SOILS CONTAINING VIRGIN PETROLI	EUM OILS TICY
ſ	BILL OF LADING # Nº 13628 PROJECTAU	THORIZATION # 26:1164:1 DATE 2/28/97
1	AUTHORIZED SIGNATURE:	
Ī	FACILITY:	TRANSPORTER NAME/ADDRESS:
]	MTS, INC. RT. 4, 9, & 202	GREAT NORTHERN ENV. SERV.
	CHICHESTER, NH	P. O. ROX 175
İ	(603) 798-4557	BATH, NH 03740
	PANT LOCATION: LITTLETON, NH	TELEPHONE(603)-747-3504
F	GENERATOR NAME/ADDRESS:	SITE OF GENERATION:
İ	MR TOM ALLEN & MRS, AMY ALLEN	-ALLEN RESIDENCE
	P. O. BOX 4027 ST JOHNSBURY, VT 05819	OLD WATERFORD ROAD EAST ST. JOHNSBURY, VT
	51 JOHNSBORI, VI 63619	EAST ST. JURISBURT, VI
	CONTACT PERSON: TON ALLEN	\$
	TELEPHONE: (802)-748-6221	
	SOIL DESCRIPTION:	QUANTITY: WT(TONS) VOL(CUYDS.)
	GASOLINE KEROSENE NO 4 OU	TOTAL PROJECTED 200
	NO. 2 OIL NO. 4 OIL	SHIPPED TO DATE THIS LOAD (EST.)
	NO. 6 OIL OTHER	REMAINING TO BE
	<u> </u>	SHIPPED
Ī	CONSULTANT: (If Applicable)	D 0 DOY 543
		P. O. BOX 943 ADDRESS: WILLISTON, VT 05495
	TELEPHONE:	
·	ANALYSIS ATTACHEDYESNO	
	VOLATILES (AS BENZENE)PPM	TOTAL PETRO. HYDROCARBON(TPH)PPM
	materials to be shipped and that the soils do not cont	information provided is a true representation of the ain other constituents which fall within the definitions
]	of hazardous waste as defined in 40CFR260 and ap	plicable State regulations.
	× Michael Quaid so agent for Tom + Ami All	.1.1.
- 1		DATE: 3 3 97
ļ	STATE	DATE: 3 3 97
	STATE AUTHORIZATION SIGNATURE (IF APPLICABLE)	DATE: 3 3 97 2964964 ES DATE CASE #
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	STATE AUTHORIZATION SIGNATURE (IF APPLICABLE)  TRUCK/TRACTOR REGISTRATION  TRAILER REGIST  TRANSPORTERS SIGNATURE:  RECEIVING CLERK SIGNATURE:  **Maximum of the company of	DATE: 3 3 97 2964964  ES DATE CASE #  TRATION LEFT SITE AT:
	TRUCK/TRACTOR REGISTRATION TRAILER REGIST  TRANSPORTERS SIGNATURE:  RECEIVING CLERK SIGNATURE:  ARRIVED 1//320 AM/PM	DATE: 3 97 2964964  ES DATE CASE #  TRATION LEFT SITE AT: 3-3-97 DATE: 11:00 AMPM  DATE: 3-97 INSPECTED SATE
	TRUCK/TRACTOR REGISTRATION  TRAILER REGIST  TRANSPORTERS SIGNATURE:  RECEIVING CLERK SIGNATURE:  ARRIVED 11.36 AM/PM  TRUCK WT: FULL 11.56	DATE: 3 97 2964944  ES DATE CASE #  TRATION LEFT SITE AT:  3-3-97 DATE: //:00 AMPM  DATE: 3-97 INSPECTED SAT?
	TRUCK/TRACTOR REGISTRATION TRAILER REGISTRATION  TRANSPORTERS SIGNATURE:  RECEIVING CLERK SIGNATURE:  ARRIVED ///36_AM/PM  TRUCK WT: FULL ///56 TICK  EMPTY 70/360 14.97 TICK	DATE: 3 97 2964944  ES DATE CASE #  TRATION LEFT SITE AT:  3-3-97 DATE: 11:00 AMPM  DATE: 3-3-97 INSPECTED SATE  SET NO. 116695
	TRUCK/TRACTOR REGISTRATION TRAILER REGISTRATION  TRANSPORTERS SIGNATURE:  RECEIVING CLERK SIGNATURE:  ARRIVED ///36_AM/PM  TRUCK WT: FULL ///56 TICK  EMPTY 70/360 14.97 TICK	DATE: 3 97 2964944  ES DATE CASE #  TRATION LEFT SITE AT:  3-3-97 DATE: //:00 AMPM  DATE: 3-97 INSPECTED SAT?
	TRUCK/TRACTOR REGISTRATION TRAILER REGIST  TRANSPORTERS SIGNATURE:  RECEIVING CLERK SIGNATURE:  ARRIVED 1//36 AM/PM  TRUCK WT:FULL 1//56 TICK  EMPTY 20/200 14,97 TICK  NET RECEIVING RECEIVING TRAILER REGIST  TRAILER REGIST	DATE: 3397  2964904  ES DATE CASE #  IRATION LEFT SITE AT:  3.3-97 DATE: 11:00 AMPM  DATE: 3-3-97 INSPECTED SATE  SET NO. 116695  SET NO. DATED: 3/3/97  CERTIFICATE OF DESTRUCTION SENT
	TRUCK/TRACTOR REGISTRATION  TRAILER REGIST  TRANSPORTERS SIGNATURE:  RECEIVING CLERK SIGNATURE:  ARRIVED ///36_AM/PM  TRUCK WT: FULL ///56_ TICK  EMPTY 201300 JU.97 TICK  NET 29950	DATE: 3 3 97 2964944  ES DATE CASE #  TRATION LEFT SITE AT:  3-3-97 DATE: 11:00 AMPM  DATE: 3-3-97 INSPECTED SATE  SET NO. 116695  SET NO  ORD BY: #W DATED: 3/3/97

Ticket No QQQ116696 MTS, INC. 69 DOVER ROAD P.O. Box 359

Date :03/04/97 In :00.01.21

Out :00.01.35

Scale #Ø1

PO BOX 943

Customer :1164

GRIFFIN INTERNATIONAL

WILLISTON VT 05495

EPSOM NH 03234

Order No :2611641

Load No :

Total Tn :

54.54

Miles :

13629

Truck Out-bound

Gross 63900.00Lbs(k)

Tare 31200.00Lbs(k)

NO.2 NO.2

Net

32700.00Lbs

16.35Tns

WEIGH MASTER (BILL)

	BILL OF LADING	
	SOILS CONTAINING VIRGIN PETROL BILL OF LADING # 13629 PROJECT AU	THORIZATION # 26:1164:1 DATE 2/28/97
	AUTHORIZED SIGNATURE:	
	FACILITY: MTS, INC. RT. 4, 9, & 202 CHICHESTER, NH (603) 798-4557 PLANT LOCATION: LITTLETON, NH	TRANSPORTER NAME/ADDRESS:  GREAT NORTHERN ENV. SERV. P. O. BOX 175  BATH, NH 03740  TELEPHONE (603)-747-3904
	GENERATOR NAME/ADDRESS:	SITE OF GENERATION:
	NR TOM ALLEN & MRS. AMY ALLEN P. O. BOX 4027 ST JOHNSBURY, VT 05819	ALLEN RESIDENCE OLD WATERFORD ROAD EAST ST. JOHNSBURY, VT
	CONTACT PERSON: TOM ALLEN (802)-748-6221 TELEPHONE:	
.~	SOIL DESCRIPTION:  GASOLINE KEROSENE  NO. 2 OIL NO. 4 OIL  NO. 6 OIL OTHER	TOTAL PROJECTED SHIPPED TO DATE THIS LOAD (EST.) REMAINING TO BE SHIPPED
>	CONSULTANT: ( ÉApplicable) INTERNATIONAL NAME: TELEPHONE:	P. O. BOX 943 ADDRESS: WILLISTON, VT 05495
	ANALYSIS ATTACHEDYESNO	
	VOLATILES (AS BENZENE)PPM	TOTAL PETRO. HYDROCARBON(TPH)PPM
	of hazardous waste as defined in 40CFR260 and ap	ain other constituents which fall within the definitions plicable State regulations.
	TRUCK/TRACTOR REGISTRATION TRAILER REGIST	TRATION LEFT SITE AT:  3-4-97 DATE: 8:30 GM/PM
	TRANSPORTERS SIGNATURE:	
	EMPTY 3/200 16,35 TICK	DATE 3-4-97_INSPECTED SAT.? ET NO ET NO ORD BY:DATED 3/4/97
	PROCESSED DATEPROCESSING FOREMAN SIGNATURE:	CERTIFICATE OF DESTRUCTION SENT ADDITIONAL COPIES SENT TO (1)

Date :03/04/97 MTS, INC. Ticket No 000116697 In :00.02.20 69 DOVER ROAD Out :00.02.41 P.O. Box 359 EPSOM NH 03234 Scale #01 Order No :2611641 Customer :1164 GRIFFIN INTERNATIONAL Load No : PO BOX 943 Total Tn : 75.44 WILLISTON VT 05495 Miles : Gross 72150.00Lbs(k) 13630 Truck Out-bound 30350.00Lbs(k) Tare NO.2 NO.2 41800.00Lbs Net 20.90Tns WEIGH MASTER (BILL)

DRIVER \_\_\_\_

SOILS CONTAINING VIRGIN PETROLE	EUM OILS
BILL OF LADING # Nº 13630 PROJECTAU	THORIZATION # 26:1164:1 DATE 2/28/97
AUTHORIZED SIGNATURE:	
FACILITY:  MTS, INC.  RT. 4, 9, & 202  CHICHESTER, NH  (603) 798-4557	TRANSPORTER NAME/ADDRESS:
PLANT LOCATION: LITTLETON, NH	TELEPHONE (603) 747-3904
GENERATOR NAME/ADDRESS:	SITE OF GENERATION:
MR TOM ALLEN & MRS, AMY ALLEN P. O. BOX 4027 ST JOHNSBURY, VT 05819	OLD WATERFORD ROAD EAST ST. JOHNSBURY, VT
CONTACT PERSON: TOM ALLEN (802)-748-6221	
SOIL DESCRIPTION:  GASOLINE KEROSENE NO. 2 OIL NO. 4 OIL NO. 6 OIL OTHER	QUANTITY: WT(TONS) VOL(CU.YDS.)  TOTAL PROJECTED 200  SHIPPED TO DATE  THIS LOAD (EST.)  REMAINING TO BE SHIPPED
CONSULTANT: (If Applicable)  NAME:A  TELEPHONE:	P. D. BOX 943 ADDRESS: WILLISTON, VT 05495
ANALYSIS ATTACHEDYESNO VOLATILES (AS BENZENE)PPM	TOTAL PETRO. HYDROCARBON(TPH)PPM
of hazardous waste as defined in 40CFR260 and app x Muhaul (	ain other constituents which fall within the definitions plicable State regulations.  DATE: 3/4/97
STATE AUTHORIZATION SIGNATURE (IF APPLICABLE)	CASE #
TRUCK/TRACTOR REGISTRATION TRAILER REGIST	TRATION LEFT SITE AT:  3-4-97 DATE: 3:00 AMARIA
TRANSPORTERS SIGNATURE:	
ARRIVED <u>4:00 AM/PM</u> TRUCK WT:FULL <u>72/50</u> 30.90 TICK EMPTY <u>70350</u> 30.90 TICK	DATE 3-4-97 INSPECTED SAT.?  ET NO  ET NO  ORD BY:  DATED_3/4/97_
PROCESSED DATE PROCESSING FOREMAN SIGNATURE:	CERTIFICATE OF DESTRUCTION SENT

Date :03/05/97 MTS, INC. Ticket No In :00.01.08 ØØØ116698 69 DOVER ROAD Out: :00.01.23 P.O. Box 359 EPSOM NH 03234 Scale #01 Order No :2611641 Customer :1164 GRIFFIN INTERNATIONAL Load No : PO BOX 943 Total Tn : 90.29 WILLISTON VT 05495 Miles : Gross 64000.00Lbs(k) 13631 Truck Out-bound Tame 34300.00Lbs(k) NO.2 NO.2 29700.00Lbs Net 14.85Tns WEIGH MASTER (BILL) DRIVER

SOILS CONTAINING VIRGIN PETROL	EUM OILS
BILL OF LADING # 100 13631 PROJECT AU	THORIZATION # 26:1164:1 DATE 2/28/97
AUTHORIZED SIGNATURE:	
FACILITY: MTS, INC. RT. 4, 9, & 202 CHICHESTER, NH (603) 798-4557	TRANSPORTER NAME/ADDRESS:  GREAT NORTHERN ENV. SERV. P. O. BOX 175 BATH, NH 03740
PLANT LOCATION: LITTLETON, NH	TELEPHONE (603)-747-3904
GENERATOR NAME/ADDRESS:  MR TOM ALLEN & MRS, AMY ALLEN P. O. BOX 4027 ST JUHNSBURY, VT 05819  CONTACT PERSON: TOM ALLEN (802)-748-5221	SITE OF GENERATION:  _ALLEN RESIDENCE OLD WATERFORD ROAD EAST ST. JOHNSBURY, VT
SOIL DESCRIPTION:  GASOLINE KEROSENE NO. 2 OIL NO. 4 OIL NO. 6 OIL OTHER	TOTAL PROJECTED SHIPPED TO DATE THIS LOAD (EST.) REMAINING TO BE SHIPPED  WT(TONS) VOLICU.YDS.) 200  /// /// /// /// /// /// /// /// //
CONSULTANT: (If Applicable)  NAME: TELEPHONE:  ANALYSIS ATTACHEDYESNO	P. O. BOX 943 ADDRESS: WILLISTON, VT 05495
VOLATILES (AS BENZENE)PPM	TOTAL PETRO. HYDROCARBON(TPH)PPM
GENERATORS SIGNATURE: I hereby certify that the	e information provided is a true representation of the ain other constituents which fall within the definitions plicable State regulations.
STATE AUTHORIZATION SIGNATURE (IF APPLICABLE)	DATECASE #
TRUCK/TRACTOR REGISTRATION TRAILER REGIST	TRATION LEFT SITE AT: 12:20  3:5-97 DATE: AM/PM
TRANSPORTERS SIGNATURE:	<b>/</b> )
EMPTY 34300 14,85 TICK	DATE 3-5-97 INSPECTED SAT?  SET NO. HUSS  ORD BY: HU DATED 3597
PROCESSED DATE	CERTIFICATE OF DESTRUCTION SENT,
PROCESSING FOREMAN SIGNATURE:	ADDITIONAL COPIES SENT TO (1)

Ticket No ଅଅଅ116699

MTS, INC. 69 DOVER ROAD P.O. Box 359

Date :03/10/97

In :00.01.28

Scale #Ø1

EPSOM NH 03234

Out :00.01.43

Customer :1164 GRIFFIN INTERNATIONAL PO BOX 943 WILLISTON VT 05495

Order No :2611641

Load No :

Total Tn : 112.49

Miles :

13687 Truck Out-bound

Gross **75000.00Lb**s(k)

NO.2

NO.2

Tare

30600.00Lbs(k)

Net

44400.00Lbs

22.20Tns

WEIGH MASTER (BILL) DRIVER

orthern

BILL OF LADING SOILS CONTAINING VIRGIN PETROLEUM OILS

BILL OF LADING # Nº 13687 PROJECT AUT	THORIZATION # 26:1164:1 DAT2/28/97
AUTHORIZED SIGNATURE:	
FACILITY: MTS, INC. RT. 4, 9, & 202 CHICHESTER, NH	TRANSPORTER NAME/ADDRESS:  GREAT NORTHERN ENV. SERV. P. O. BOX 175
(603) 798-4557	BATH, NH 03740
PLANT LOCATION: LITTLETON, NH	TELEPHONE(603)-747-3904
GENERATOR NAME/ADDRESS:	SITE OF GENERATION:
MR TOM ALLEN & MRS, AMY ALLEN P. O. BOX 4027 ST JUHNSBURY, VT 05819	ALLEN RESIDENCE OLD WATERFORD ROAD EAST ST. JOHNSBURY, VT
CONTACT PERSON: TOM ALLEN (802)-748-6221	
SOIL DESCRIPTION:	QUANTITY: WT(TONS) VOL(CU.YDS.)
GASOLINE KEROSENE NO. 2 OIL NO. 4 OIL NO. 6 OIL OTHER	TOTAL PROJECTED 200 SHIPPED TO DATE THIS LOAD (EST.) REMAINING TO BE SHIPPED
CONSULTANT: (If Applicable)  NAME:A  TELEPHONE:	DDRESS: WILLISTON, VT 05495
ANALYSIS ATTACHEDYESNO VOLATILES (AS BENZENE)PPM	TOTAL PETRO HYDROCARRON(TPH) PPM
GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not conta of hazardous waste as defined in 40CFR260 and app X	information provided is a true representation of the ain other constituents which fall within the definitions
STATE AUTHORIZATION SIGNATURE (IF APPLICABLE)	DATECASE #
TRUCK/TRACTOR REGISTRATION TRAILER REGIST	RATION LEFT SITE AT:AM/PM
TRANSPORTERS SIGNATURE:	
ARRIVED AM/PM  TRUCK WT:FULL 75000 TICKI  EMPTY 30600 33,70 TICKI	2DATE_3/10/97_INSPECTED SAT?? ET NO ET NO ORD BY:DATED_3/10/97
PROCESSED DATE	CERTIFICATE OF DESTRUCTION SENT
PROCESSING FOREMAN SIGNATURE:	ADDITIONAL COPIES SENT TO (1)
	(2)

Ticket No 000116700

MTS, INC. 69 DOVER ROAD P.O. Box 359 EPSOM NH 03234

Date :03/13/97

In :13.00.54 Out :13.01.13

Scale #01

Customer :1164 GRIFFIN INTERNATIONAL PO BOX 943

Load No : Total Tn :

120.54

Order No :2611641

Miles :

13632

Truck Out-bound

Gross 48700.00Lbs(k)

Tarre

32600.00Lbs(k)

NO.2 NO.2

WILLISTON VT Ø5495

Net

\_\_\_\_\_\_\_ 16100.00Lbs

8.05Tns

WEIGH MASTER	(BILL) Hepus
DRIVER	Great Horthern
Remarks	

BILL OF LADING SOILS CONTAINING VIRGIN PETROLE	EUM OILS		
BILL OF LADING # Nº 13632 PROJECT AUT	THORIZATION # 26:1164:1 DATE/28/97		
AUTHORIZED SIGNATURE:			
FACILITY:	TRANSPORTER NAME/ADDRESS:		
MTS, INC. RT. 4, 9, & 202	GREAT NORTHERN ENV. SERV.		
CHICHESTER, NH	P. O. BOX 175		
(603) 798-4557	BATH, NH 03740		
PLANT LOCATION: LITTLETON, NH	TELEPHONE(603) 747-3904		
GENERATOR NAME/ADDRESS:	SITE OF GENERATION:		
MR TOM ALLEN & MRS, AMY ALLEN	-ALLEN RESIDENCE		
P. O. BOX 4027	OLD WATERFORD ROAD		
ST JOHNSBURY, VT 05819	EAST ST. JOHNSBURY, VT		
CONTACT PERSON:ALLEN			
TELEPHONE: (802)-748-6221			
SOIL DESCRIPTION:	QUANTITY: WT(TONS) VOL(CU.YDS.)		
GASOLINE KEROSENE NO 4 OIL	TOTAL PROJECTED 200		
NO. 2 OIL NO. 4 OIL	SHIPPED TO DATE		
NO. 6 OIL OTHER	THIS LOAD (EST.)		
	REMAINING TO BE SHIPPED		
CONSULTANT: (If Applicable)  ORIFFIN INTERNATIONAL  NAME:  TELEPHONE:	DDRESS: P. O. BOX 943 WILLISTON, VT 05495		
ANALYSIS ATTACHEDYESNO			
VOLATILES (AS BENZENE)PPM	TOTAL PETRO. HYDROCARBON(TPH)PPM		
GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not conta of hazardous waste as defined in 40CFR260 and approximately approx	ain other constituents which fall within the definitions plicable State regulations.		
STATE AUTHORIZATION SIGNATURE (IF APPLICABLE)	DATECASE #		
TRUCK/TRACTOR REGISTRATION TRAILER REGIST	RATION LEFT SITE AT: 9, 45 AMIPM		
TRANSPORTERS SIGNATURE:			
RECEIVING CLERK SIGNATURE: Les Pages	DATE 3/13/97 INSPECTED SAT.?		
ARRIVED 9:00 AM/PM			
TRUCK WT: FULL 48 760 TICK	ET NO. 142700		
EMPTY 32600 8 TICK	ET NO		
NET 16100 RECO	ORD BY: #11 DATED 3/13/97		
•	3113 311 <u></u>		
PROCESSED DATE			
PROCESSED DATE PROCESSING FOREMAN SIGNATURE:	CERTIFICATE OF DESTRUCTION SENT ADDITIONAL COPIES SENT TO (1)		

# SOIL SAMPLE ANALYSES RESULTS (FOR DISPOSAL REQUIREMENTS)



Massachusetts Certification M-MA 138
Connecticut Approval # PH 0777
Rhode Island # 98 & Maine # n/a
New Hampshire ID # 253893
New York ID #11393
Florida HRS87448

Griffin International P.O. Box 943 Williston, VT 05495

February 26, 1997

Attn: Erik Sandblom

Client Project No.: 12964964 Location: Allen Residence- VT

Lab ID No. Client ID. Analysis Requested

AA70182

1

C96-EPA 8260

C104-TPH by GC (Soil)

TPH Modified 8015 (soil)

C82/83-RCRA8

Flash Point

President/Laboratory Director

### PECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: 1

Lab ID No: AA70182

Location: Allen Residence-VT

Client Job No.: 12964964

Matrix: Soil Collected: 02/24/97 by GRIFFIN INT. Received on 02/25/97 by AM QC and Data Review by DDR

Preservative: Refrigeration Container: 1 Glass Soil Jar Condition of Sample as Received: Satisfactory Delivered by: UPS

#### **Volatile Organics**

EPA Method 8260

Parameter for AA70182	Result (ug/Kg)	MDL			
			Extracted	Analyzed	Analyst
Benzene	Not detected	200	02/25/97	02/26/97	SC
Bromobenzene	Not detected	200	02/25/97	02/26/97	SC
Bromochloromethane	Not detected	200	02/25/97	02/26/97	SC
Bromodichloromethane	Not detected	200	02/25/97	02/26/97	SC
Bromoform	Not detected	200	02/25/97	02/26/97	SC
n-Butylbenzene	10,300	200	02/25/97	02/26/97	SC
sec-Butylbenzene	6,000	200	02/25/97	02/26/97	SC
tert-Butylbenzene	Not detected	200	02/25/97	02/26/97	SC
Carbon tetrachloride	Not detected	200	02/25/97	02/26/97	SC
Chlorobenzene	Not detected	200	02/25/97	02/26/97	SC
Chloroform	Not detected	200	02/25/97	02/26/97	SC
2-Chlorotoluene	Not detected	200	02/25/97	02/26/97	SC
4-Chlorotoluene	Not detected	200	02/25/97	02/26/97	SC
1,2-Dibromo-3-chloropropane	Not detected	200	02/25/97	02/26/97	SC
Dibromochloromethane	Not detected	200	02/25/97	02/26/97	SC
1,2-Dibromoethane (EDB)	Not detected	200	02/25/97	02/26/97	SC
Dibromomethane	Not detected	200	02/25/97	02/26/97	SC
1,2-Dichlorobenzene	Not detected	200	02/25/97	02/26/97	SC
1,3-Dichlorobenzene	Not detected	200	02/25/97	02/26/97	SC
1,4-Dichlorobenzene	Not detected	200	02/25/97	02/26/97	SC
1,1-Dichloroethane	Not detected	200	02/25/97	02/26/97	SC
1,2-Dichloroethane	Not detected	200	02/25/97	02/26/97	\$C
1,1-Dichloroethene	Not detected	200	02/25/97	02/26/97	SC
cis-1,2-Dichloroethene	Not detected	200	02/25/97	02/26/97	SC
trans-1,2-Dichloroethene	Not detected	200	02/25/97	02/26/97	SC
1,2-Dichloropropane	Not detected	200	02/25/97	02/26/97	SC
1,3-Dichloropropane	Not detected	200	02/25/97	02/26/97	SC
2,2-Dichloropropane	Not detected	200	02/25/97	02/26/97	SC
1,1-Dichloropropene	Not detected	200	02/25/97	02/26/97	SC
cis-1,3-Dichloropropene	Not detected	200	02/25/97	02/26/97	SC
trans-1,3-Dichloropropene	Not detected	200	02/25/97	02/26/97	SC

Continued next page..

Parameter for AA70182	Result (ug/Kg)	MDL			
			Extracted	Analyzed	Analyst
Ethylbenzene	4,800	200	02/25/97	02/26/97	SC
Hexachlorobutadiene	Not detected	500	02/25/97	02/26/97	SC
Isopropylbenzene	5,400	200	02/25/97	02/26/97	SC
4-Isopropyltoluene	5,800	200	02/25/97	02/26/97	SC
Methylene chloride	Not detected	500	02/25/97	02/26/97	SC
Naphthalene	21,600	200	02/25/97	02/26/97	SC
n-Propylbenzene	9,300	200	02/25/97	02/26/97	SC
Styrene	Not detected	200	02/25/97	02/26/97	SC
1,1,1,2-Tetrachloroethane	Not detected	200	02/25/97	02/26/97	SC
1,1,2,2-Tetrachloroethane	Not detected	200	02/25/97	02/26/97	SC
Tetrachloroethene	Not detected	200	02/25/97	02/26/97	SC
Toluene	1,400	200	02/25/97	02/26/97	SC
1,2,3-Trichlorobenzene	Not detected	200	02/25/97	02/26/97	SC
1,2,4-Trichlorobenzene	Not detected	200	02/25/97	02/26/97	SC
1,1,1-Trichloroethane	Not detected	200	02/25/97	02/26/97	SC
1,1,2-Trichloroethane	Not detected	200	02/25/97	02/26/97	SC
Trichloroethene	Not detected	200	02/25/97	02/26/97	SC
Trichlorofluoromethane	Not detected	200	02/25/97	02/26/97	SC
1,2,3-Trichloropropane	Not detected	200	02/25/97	02/26/97	SC
1,2,4-Trimethylbenzene	55,300	200	02/25/97	02/26/97	SC
1,3,5-Trimethylbenzene	17,400	200	02/25/97	02/26/97	SC
m,p-Xylenes	16,800	400	02/25/97	02/26/97	SC
o-Xylene	9,200	200	02/25/97	02/26/97	SC
Methyl-t-butyl ether	Not detected	200	02/25/97	02/26/97	SC
BFB Surrogate Recovery (%)	123		02/25/97	02/26/97	SC
p-DFB Surrogate Recovery (%)	109		02/25/97	02/26/97	SC
CLB-d5 Surrogate Recovery (%)	101		02/25/97	02/26/97	SC
% Solids	85.4	0.1	02/25/97	02/25/97	SC

Laboratory Report

Client ID: 1

Lab ID No: AA70182

Location: Allen Residence- VT

Client Job No.: 12964964

Matrix: Soil Collected: 02/24/97 by GRIFFIN INT. Received on 02/25/97 by AM QC and Data Review by DDR

Preservative: Refrigeration Container: 2 Glass Soil Jars Condition of Sample as Received: Satisfactory Delivered by: UPS

## Total Petroleum Hydrocarbons by GC

Modified SW846 Methods 8100/8015

Parameter	Result (mg/Kg)	MDL			
			Extracted	Analyzed	Analyst
Modified EPA Method 8100:					
Total Hydrocarbons	4,000		02/25/97	02/25/97	MB
Fuel Oil #2	4,000	40	02/25/97	02/25/97	MB
Fuel Oil #4	Not detected	40	02/25/97	02/25/97	MB
Fuel Oil #6	Not detected	80	02/25/97	02/25/97	MB
Motor Oil	Not detected	80	02/25/97	02/25/97	MB
Ligroin	Not detected	40	02/25/97	02/25/97	MB
Aviation Fuel	Not detected	40	02/25/97	02/25/97	MB
Unidentified	Not detected		02/25/97	02/25/97	MB
Other Oil	Not detected	80	02/25/97	02/25/97	MB
Modified EPA Method 8015:					
Gasoline	Not detected	20	02/25/97	02/25/97	МВ

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.

Fuel Oil #2 - includes home heating oil, #2 fuel oil, diesel.

Fuel Oil #4 - Includes #4 Fuel Oil

Fuel Oil #6 - includes #6 oil and bunker "C" oil.

Motor Oil - includes virgin and waste automobile oils.

Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.

Aviation Fuels - includes Kerosene, Jet A and JP-4.

Other Oil - includes cutting and lubricating oils.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A \* in the results column indicates the petroleum calibration used to quantify unidentified samples.

Laboratory Report

Client ID: 1

Lab ID No: AA70182

Location: Allen Residence- VT

Client Job No: 12964964

Matrix: Soil Collected: 02/24/97 by GRIFFIN INT. Received on 02/25/97 by AM QC and Data Review by DDR

Preservative: Refrigeration Container: 2 Glass Soil Jars Condition of Sample as Received: Satisfactory Delivered by: UPS

### **Total RCRA8 Metals**

Parameter	Result (mg/Kg)	MDL			
			Extracted	Analyzed	Analyst
Arsenic	Not detected	1.005	02/25/97	02/25/97	CR
Barium	45.9	1.005	02/25/97	02/25/97	CR
Cadmium	Not detected	1.005	02/25/97	02/25/97	CR
Chromium	29.1	1.005	02/25/97	02/25/97	CR
Lead	19.8	0.502	02/25/97	02/25/97	CR
Mercury	Not detected	0.215	02/25/97	02/25/97	CR
Selenium	Not detected	0.502	02/25/97	02/25/97	CR
Silver	Not detected	1.005	02/25/97	02/25/97	CR

Laboratory Report(Subcontracted Analyses)

Client ID: 1

Lab ID No: AA70182

Location: Allen Residence-VT

Client Job No.: 12964964

Matrix: Soil Collected: 02/24/97 by GRIFFIN INT. Received on 02/25/97 by AM QC and Data Review by DDR

Preservative: Refrigeration Container : 2 Glass Soil Jars Condition of Sample as Received: Satisfactory Delivered by: UPS

#### Flash Point

SW 846-1010

Parameter	Result degree F	MDL	Extracted	Analyzed	Analyst
Flash Point	>200	200	02/26/97	02/26/97	PX

#### Spectrum Analytical, Inc. Laboratory Report Supplement

#### References

Methods for the Determination of Organic Compounds in Drinking Water. EPA-600/4-88/039. EMSL 1988.

Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, EMSL 1983.

Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater. EPA 600/4-82-057. EMSL 1982.

Test Methods for Evaluating Solid Waste. Physical/Chemical Methods. EPA SW-846, 1986.

Standard Methods for the Examination of Water and Wastes. APHA-AWWA-WPCF. 16th Edition. 1985.

Standard Methods for Comparison of Waterborne Petroleum Oils by Gas Chromatography. ASTM D 3328, 1982.

Oil Spill Identification System. U.S. Coast Guard CG-D-52-77. 1977.

Handbook for Analytical Quality Control in Water and Wastewater Laboratories. EPA 600/4-79-019, EMSL 1979.

Choosing Cost-Effective QA/QC (Quality Assurance/Quality Control) Programs for Chemical Analyses. EPA 600/4-85/056, EMSL 1985.

### Report Notations

```
Not Detected,
                        The compound was not detected at a concentration
Not Det, ND or nd
                       equal to or above the established method detection
                       limit.
               NÇ
                       Not Calculated
                  =
              MCL
                       EPA Maximum Contamination Level
              VOA =
                       Volatile Organic Analysis
              BFB
                       4-Bromofluorobenzene
                                              (an EPA 624 Surrogate)
            p-DFB
                       1,4-Difluorobenzene
                                              (an EPA 624 Surrogate)
                                            (an EPA 624 Surrogate)
           CLB-d5
                       Chlorobenzene-d5
              BCP =
                       2-Bromo-I-chloropropane (an EPA 601 Surrogate)
              TFT =
                       a, a, a-Trifluorotoluene (an EPA 602 Surrogate)
Decachlorobiphenyl =
                       (an EPA 608/8080 Surrogate)
```

#### **Definitions**

Surrogate Recovery = The recovery (expressed as a percent) of a non method analyte (see surrogates listed above) added to the sample for the purpose of monitoring system performance.

Matrix Spike Recovery = The recovery (expressed as a percent) of method analytes added to the sample for the purpose of determining any effect of sample composition on analyte recovery.

Laboratory Replicate = Two sample aliquots taken in the analytical laboratory and analyzed separately with identical procedures. Analyses of laboratory duplicates give a measure of the precision associated with laboratory procedures, but not with sample collection, preservation, or storage procedures.

Field Duplicate = Two separate samples collected at the same time and place under identical circumstances and treated exactly the same throughout field and laboratory procedures. Analysis of Field duplicates give a measure of the precision associated with sample collection, preservation and storage, as well as with laboratory procedures.

Relative Percent Difference (% RPD) = The precision measurement obtained on duplicate/replicate analyses. %RPD is calculated as:

```
%RPD = (value1 - value2) * 100%
ave. value
```

# CHAIN OF CUSTODY RECORD



Mage	_ 07							_	_	_	_									SP.	EGI	RU	<i>! Ai</i>	KALY	[E]	<u>*-</u>	_
PROJECT NO	O.: Allen Ro	widence	- 1296	,491	64		A	EP	OR	TTI	0:	G	n f	<del>'</del> (;)	4	ュ	wh	w	المها	'n	٦	_	_	_	_	_	)
	Allen Reside															_											
LOCATION:	E. Gr. Bhi	usbury	W.	STA	TE V	<b></b>	CITY Williston STATE W ZIP O TYPS										1										
REFERENCE	QUOTE NUMB	ER (RON	<i>i</i> ):		· .		C	πY	<u> </u>	<u>.</u>	<u>;1)</u>	اک	W	_	_	_		ST/	ATE	1	V	· .	ZIP	8	14	9.5	1
PURCHASE	ORDER NO.:							(VO													_				_	_	
PROJECT M	gr: Erik Savel	blom									<b>/</b> ~		_					_	_		_		_		_	_	
SAMPLER(s)	1: Same						C	ΙΤΥ	_								-	ST/	ATE	=	_		ZIP		_	-	
SAMPLE TY	YPE & MATRIX	CODES	i:					CONT	(Al)	HER!	5_	匚	VO	C's		SVC	XCs S	-	TPH		با			ALS OTHER		4	
1=4°C 2=	HCI 3 = H,SO,	4 = HNO,	5 = OTI-	IER_		/		<b>E</b>				2-602/8020			S	ধ	100/8270	)15M)	₽	REASE	2.	Tot TC	iubi tal LP	- 1			
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\ <del></del>										_ ]	D/	ATE	RES	SEIL.	TS I	4FF	ne.	В·	1.5	48	•						



# ATTACHMENT II

Soil Boring/Monitoring Well Construction Logs

Site: Al	len Residence		Sheet 1 of 1		Soil Boring/Monitoring Well: MW-1				
	Kris Larsen/El	ISR		Construction:					
	n: East St. John	<del></del>	MW Depth:	Native backfill: 0-2' bgs Bentonite seal: 2-3' bgs					
Driller:	Tri-State Drill	ing	Riser: 5'		ilica Sand: 3-15' bgs				
	versight. P. Rer		Screen: 10'						
Depth	Sample	Blow	Recovery						
BGS		Counts	(inches)		Soil Description				
				PID	Con	st.			
						_			
0-2'		3-3-4-1	20	0.0	4" org. matter & silt & fine sand 12" stiff brown silt, some fine sand 4" fractured rock				
						_			
2'-4'		5-5-5-6	18	0.0	18" stiff brown silt, red varves, trace gravel				
4'-6'		5-6-5-4	16	0.0	16" brown silty fine to medium				
	*****				sand, some gravel				
6'-8'	TPH 8100M	10-12-14-17	18	0.0	8" fine to medium sand - moist 10" fractured rock some sand	_			
8'-10'		20-30-21-19	12	0.0	2" moist silty fine to medium sand 10" fractured rock and silty sand				
15-17'		30-35-25-30	12	0,0	tight till, fractured rock, silty fine sands				
[									
	Method: DEX AR	Depth to GW: est. 6'	Well dia.:						

Site: Al	len Residence		Sheet 1 of 1		Soil Boring/Monitoring Well: MW-2
B	Kris Larsen/El	NSR		Const	truction:
Locatio	n: East St. John	nsbury, VT	MW Depth:	Nativ	e backfill: 0-2' bgs
ļ			15'		onite seal: 2-3' bgs
	Tri-State Drill		Riser: 5'	#2 Si	ilica Sand: 3-15' bgs
	versight: P. Rei		Screen: 10'		described to the second
Depth BGS	Sample	Blow Counts	Recovery (inches)		Soil Description
203		Counts	(Inches)	PID	Son Description Const.
					VOASI
				· · · · · · · ·	
0-2'		Grab		0.0	org. matter & silt & fine sand
					<u> </u>
<b> </b>					
<b> </b>			1	··· -	
5'-7'	,	5-6-13-45	12	0.0	6" stiff brown silt, fine sand and
<u>[</u>			] [		fractured rock
					3" silty fine to medium sand,
					some gravel
	:				3" Silty course to medium sand, some gravel
					bonto gravos
10-12'	TPH 8100M	13-13-15-12	20	0.0	5" medium sand, some gravel
		j			5" silty medium sand, some gravel
					5" moist stiff silt and fine sand
			}		5" silty fine to medium sand
<b></b>					
15-17		15-15-45	10	0.0	10" stiff silty fine to medium
13-17		73-13-42	10	0,0	sand, some gravel
<b></b>			<del></del>		
<del>-</del>			-		
	·····		·		
Drilling	Method:	Depth to	Well dia.:		
	DEX AR	GW: est. 11'	2"		
		*****			

Site: Al	llen Residence		Sheet 1 of 1		Soil Boring/Monitoring Well: MW-3
Client:	Kris Larsen/El			Const	truction:
Locatio	n: East St. John	asbury, VT	MW Depth:	Nativ	e backfill: 0-2' bgs
			15 <sup>1</sup>	Bento	onite seal: 2-3' bgs
	Tri-State Drill		Riser: 5'	#2 S	ilica Sand: 3-15' bgs
Env. O	versight: P. Re:	nouf/CEA	Screen: 10'		
Depth	Sample	Blow	Recovery		
BGS		Counts	(inches)		Soil Description
				PID	Const.
<b></b>			ļ		
<b></b>		ļ	ļ		
0.01	 	· · · · · ·		~~~	9 - 12 9 5
0-2'	ļ	grab		0.0	org. matter & silt & fine sand
<b> </b>					
5'-7'		6-8-13-15	20	0.0	20" olive-gray silt and fine to
	•		j -	-,-	medium sand
		<del></del>			
	· · · · · · · · · · · · · · · · · · ·				
10-12'	TPH 8100M	8-9-13-15	20	0.0	20" moist stiff silty fine to
					medium sand, some gravel, trace
					fractured rock
			<u> </u>		
			<u> </u>		
15-17	15-15-30-30		18	0.0	8" silty medium to course sand
					10" moist stiff silty fine to
			<u> </u>	<del></del>	medium sand, some gravel
<b> </b>					<b></b>
<del></del>			<del></del>	<u>.</u>	
	<del>, , , , , , , , , , , , , , , , , , , </del>		<del></del>		
			<del>  </del>		
Drilling	Method:	Depth to	Well dia.:		
	DEX AR	GW: 12'	2 <sup>6</sup>		
TIDA O	DUA AR	U 11 , 12			

			Sheet 1 of 1		Soil Boring/Monitoring Well: MW-	
	Kris Larsen/EN				ruction:	
Location	n: East St. John	isbury, VT	MW Depth:		e backfill: 0-2' bgs	
			15'		nite seal: 2-3' bgs	į
	Tri-State Drilli		Riser: 5'	#2 51	lica Sand: 3-15' bgs	
والمستوانية والمنافق والأراب	ersight: P. Ren		Screen: 10'			
Depth	Sample	Blow Counts	Recovery (inches)		Soil Description	
BGS		Counts	(Hiches)	PID	Son Description	Const.
				1112		C-03155.
<b></b>			†			
-						
0-2'		grab		0.0	org. matter & silt & fine sand	
5'-7'		2-3-3-4	20	0.0	20" olive-gray silt and fine to	
ļ					medium sand	
┡						
₿ <del>┈┈</del>	<u> </u>		<u> </u>			
10-12'	TPH 8100M	2-3-4-5	20	0.0	20" moist stiff silty fine to	
10-12	irit aroum	2-3-4-3	**	0.0	medium sand, some gravel	
<u> </u>		···				
						,
15-17'		4-12-12-14	10	0.0	20" moist stiff silty fine to	İ
					medium sand with red varves,	
		·····			some gravel, trace fractured rock	
<del> </del>						
<b> </b>		<del> </del>				
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	أنظفناه وججوعها	<u> </u>				
Drilling		Depth to	Well dia.:		ĺ	Ĭ
HSA OF	DEX AR	GW: 10 <sup>t</sup>	2" ]			



# ATTACHMENT III

Laboratory Analytical Report Soil Samples Collected May 23, 1997



Massachuseus Cartification M-MA 138 Connection Approval # PH 0777 Rhodoleland # 96 & Meine # g/a New Hampshire-ID # 253896 New York ID #11393 Florida HRS87448

CEA, Inc. P.O. Box 1246

June 3, 1997

Whiter River Junction, VT 05001

Attn: Paul Renouf

Client Project No.: VT-014

Location: Allen Residence - St Johnsbury

Lab ID No.	Client ID	Analysis Requested
AA76643	SB-1	TPH by GC
AA76644	50-2	TPH by GC
AA76645	SB-3	TPH by GC
AA76646	53-4	TPH by GC

Hanibal Tryde President Laborators Director

rized.

ENVIRONMENTAL ANALYSES

% Solids

# SPECTRUM ANALYTICAL, INC. Laboratory Report

Client ID: SB-1 Lab ID No.: AA76643

Location: Allen Residence - St Johnsbury

Client Job No.: VT-014

Matrix: Soil Collected: 05/23/97 by CEA Recrived on 05/28/97 by DDR QC and Data Review by

Preservative: Refrigeration
Container: 1 Glass Soil Jar
Condition of Sample as Received: Satisfactory
Delivered by: Courier

06/02/97

06/03/97

LR

#### Total Hydrocarbons by GC Modified EPA Method 8100 Result (mg/Kg) MDL **Parameter** Extracted Analyzed Analyst Total Hydrocarbons (GC) Not detected 06/02/97 06/03/97 ATP Fingerprint based quantification: Gasoline Not detected 40 06/02/97 06/03/97 ATP Fuel Oil #2 Not detected 40 06/02/97 06/03/97 ATP Fuel Oil #4 Not detected 40 06/02/97 06/03/97 ATP Fuel Oil #6 Not detected 80 06/02/97 06/03/97 ATP Motor Oil Not detected 80 06/02/97 06/03/97 ATP Ligroin Not detected 4() 06/02/97 06/03/97 ATP Aviation Fuel Not detected 40 06/02/97 06/03/97 ATP Other Oil Not detected 80 06/02/97 06/03/97 ATP Unidentified Not detected 06/02/97 06/03/97 ATP

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC lingerprints obtained from petroleum products. Fossible match categories are as follows:

0.1

Oasoline - includes regular, unleaded, premium, etc.

Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.

Fuel Oil #4 - Includes #4 Fuel Oil.

86.9

Fuel Oil #6 - includes #6 oil and bunker "C" oil.

Motor Cil - includes virgin and waste automobile.

Ligroin - includes mineral spirits, petroleum naphtha, vmdrp naphtha.

Aviation Fusis - Includes Kerosene, Jet A and JP-4.

Other Oil - includes tubricating and cutting oil and silicon oil,

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A \* in the results column indicates the petroleum calibration used to quantify unidentified samples.

Client ID: SB-2 Lab ID No.: AA76644

Matrix: Soil Collected: US/23/97 by CEA Received on 05/28/97 by DDR QC and Data Review by

Location: Alien Residence - St Johnsbury

Client Job No.: VT-014

Preservative: Refrigeration Container: 1 Glass Soil Jar

Condition of Sample as Received: Satisfactory Delivered by: Consider

# Total Hydrocarbons by GC Modified EPA Method 8100

Parameter Total Hydrocarbons (GC)	Result (mg/Kg) Not detected			Analyzed 06/03/97	Analyst ATP
Fingerprint based quantification	<b>:</b>				
Gasoline	Not detected	40	06/02/97	06/03/97	ATP
Fuel Oil #2	Not desected	40	06/02/97	06/03/97	ATP
Fuel Oil #4	Not detected	40	06/02/97	06/03/97	ATP
Fuel Oil #6	Not detected	80	06/02/97	06/03/97	ATP
Motor Oil	Not detected	60	06/02/97	06/03/97	ATP
Ligroin	Not detected	40	06/02/97	06/03/97	ATP
Aviation Fuel	Not detected	40	06/02/97	06/03/97	ATP
Other Oil	Not detected	80	06/02/97	06/03/97	ATF
Unidentified	Not detected		06/02/97	06/03/97	ATP
% Solids	85.6	0.1	06/02/97	06/03/97	LR

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.

Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.

Fuel Oil #4 - Includes #4 Puel Oil.

Fuel Oil #6 - includes #6 oil and bunker "C" oil.

Motor Oil - includes virgin and waste automobile.

Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.

Aviation Fuels - includes Kerosens, Jet A and JP-4.

Other Oil - includes jubricating and cutting oil and allicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A \* in the results column indicates the petroleum calibration used to quantify unidentified samples.

Client ID: SB-3 Lab ID No.: AA76645

Matrix: Soil Collected: 05/23/97 by CEA Received on 05/28/97 by DDR QC and Data Review by

Location: Allen Residence - St Johnsbury

Client Job No.: VT-014

Preservative: Refrigeration Container: 1 Olass Soil Jar

Condition of Sample as Received: Satisfactory Delivered by: Courier

# Total Hydrocarbons by GC Modified EPA Method 8100 W ...... \$4 /... 707 . X

Parameter	Result (mg/Kg)	MDL	Extracted	Amaluand	A
Total Hydrocarbons (GC)	Not detected		06/02/97	Analyzed 06/03/97	Analyst ATP
Fingerprint based quantificat	on:				
Gasoline	Not detected	40	06/02/97	06/03/97	ATP
Fuel Oil #2	Not detected	40	06/02/97	06/03/97	ATP
Fuel Oil #4	Not detected	40	06/02/97	06/03/97	ATP
Fuel Oil #6	Not detected	80	06/02/97	06/03/97	ATP
Motor Oil	Not detected	80	06/02/97	06/03/97	ATP
Ligroin	Not detected	40	06/02/97	06/03/97	ATP
Aviation Fuel	Not detected	40	06/02/97	06/03/97	ATP
Other Oil	Not detected	80	06/02/97	06/03/97	ATP
Unidentified	Not detected		06/02/97	06/03/97	ATP
% Solids	85.8	0.1	06/02/97	06/03/97	LR

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.

Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.

Fuel Oil #4 - Includes #4 Fuel Oil.

Fuel Oil #6 - includes #6 oil and bunker "C" oil.

Motor Oil - includes virgin and waste automobile.

Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.

Aviation Fuels - includes Kerosene, Jet A and JP-4.

Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a perroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A \* in the results column indicates the petroloum calibration used to quantify unidentified samples.

Client ID: SB-4 Lab ID No.: AA76646

Matrix: Soil Collected: 05/23/97 by CEA Received on 05/28/97 by DDR QC and Data Review by

Location: Allen Residence - St Johnsbury

Client Job No.: VT-014

Preservative: Refrigeration Container: 1 Glass Soil Jar Condition of Sample as Received: Satisfactory Delivered by: Courier

Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter Total Hydrocarbons (GC)	Result (mg/Kg) Not detected	MDL	Extracted 06/02/97	<b>Analyzed</b> 06/03/97	Analyst ATP
Fingerprint based quantificaton	•				
Gasoline	Not detected	40	86/02/97	06/03/97	ATP
Fuel Oil #2	Not detected	40	06/02/97	06/03/97	ATP
Fuel Oil #4	Not detected	40	06/02/97	06/03/97	ATP
Fuel Oil #6	Not detected	80	06/02/97	06/03/97	ATP
Motor Oil	Not detected	80	06/02/97	06/03/97	ATP
Ligroin	Not detected	40	06/02/97	06/03/97	ATP
Aviation Fuel	Not detected	40	06/02/97	06/03/97	ATP
Other Oil	Not detected	80	06/02/97	06/03/97	ATP
Unidentified	Not detected		06/02/97	06/03/97	ATP
% Solids	83.2	0.1	06/02/97	06/03/97	LR

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.

Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.

Fuel Oil #4 - Includes #4 Fuel Oil.

Fuel Oil #6 - includes #6 oil and bunker 'C' oil.

Motor Oil - includes virgin and waste automobile.

Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.

Aviation Fuels - includes Kerosene, Jet A and JP-4.

Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A \* in the results column indicates the petroleum calibration used to quantify unidentified samples.

# Spectrum Analytical, Inc. Laboratory Report Supplement

#### References

Methods for the Determination of Organic Compounds in Drinking Water. EPA-600/4-88/039, EMSL 1988.

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. EMSL 1983.

Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater. EPA 600/4-82-057. EMSL 1982.

Test Methods for Evaluating Solid Waste. Physical/Chemical Methods. EPA SW-846. 1986.

Standard Methods for the Examination of Water and Wastes. APHA-AWWA-WPCF. 16th Edition. 1985.

Standard Methods for Comparison of Waterborne Petroleum Olls by Gas Chromatography. ASTM D 3328, 1982.

Oil Spill Identification System. U.S. Coast Guard CG-D-52-77, 1977.

Handbook for Analytical Quality Control in Water and Wastewater Laboratorics. EPA 600/4-79-019. EMSL 1979.

Choosing Cost-Effective QA/QC (Quality Assurance/Quality Control) Programs for Chemical Analyses. EPA 600/4-85/056. EMSL 1985.

#### Renort Notations

Not Detected, Not Det, ND or nd	•	The compound was not de- equal to or above the es- limit.	tect stab.	ed a: lishe	ta e ed me	concentration ethod detection
NC	-	Not Calculated				
MCL	#	EPA Maximum Contaminatio	n L	evel		
ACV	-	Volatila Organic Analysi	is			
BFB	•	d-Bromofluorobenzene	lan	EPA	624	Surrogate)
p-DFA	-	1,4-Difluorobenzene	(#n	EPA	624	Surrogate)
CLB-d5	-	Chlorobensene-d5	(an	EPA	624	Surrogate)
BCP	-	2-Bromo-1-chloropropane				
TFT	-	a, a, a-Trifluorotoluene	(an	EPA	602	Surrogate)
Decachlorobiphenyl	-	(an EPA 608/8080 Surroge	ete/			

#### **Definitions**

Surrogate Recovery = The recovery (expressed as a percent) of a non method analyte (see surrogates listed above) added to the sample for the purpose of monitoring system performance.

Matrix Spike Recovery = The recovery (expressed as a percent) of method analytes added to the sample for the purpose of determining any effect of sample composition on analyte recovery.

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Relative Percent Difference (% RPD) = The precision measurement obtained on duplicate/replicate analyses. %RPD is calculated as:

%RPD = (value1 - value2) \* 100% ave, value

# CHAIN OF CUSTODY RECORD



Page \_\_\_\_\_ of \_\_ BPECTRUM ANALYTICAL YAN RENOUP PROJECT NO.: VT-CH REPORT TO: ALLEN MISIOLIKE SITE NAME: CEA VT LOCATION: ST. TANKERUM STATE V7 ADDRESS: O. Box 1246 CITY ASATS AND JUNGEN STATE UT REFERENCE QUOTE NUMBER (RQN): ZIP OSON **PURCHASE ORDER NO.:** INVOICE TO: CEA-MA PARE REDIOUP PROJECT Mgr: BOYLUTAN STATE MA ZIP SAMPLER(s): CITY CONTAINERS SAMPLE TYPE & MATRIX CODES: VOC's SVQC's METALS OTHER 1 - Soluble 1 4°C 2 HC 3 + HSO, 4 - HNO, 5 = OTHER (909/909) 2 - Total 2-DIL/GREASE OF AMBERICA ASSLITERS 2-524 2-8280 2-KETONES 2-602/902 3 - TCLP AGC(80) C = COMPOSITE G = GRAB OF PLASTIC LITTES PRESERVATIVE M VOA WALS FASH 1 = AQUEOUS <u>₹</u> 3 = SLUDGE 5 = OTHER OF GLASS MATRIX 2 = SOIL 4 = SEDIMENT 601/19010 Ġ 023 LAB USE 2 ¥ ONLY SAMPLE I.D. DATE TIME みろしんひょう 56-1 10:10 SB-3 2:45 2 ΑA ΑA ΑA ۸A RELINQUISHED BY: RECEIVED BY: DATE TIME 28-9 SPECIAL HANDLING: Please SPECIAL INSTRUCTIONS: Pletum Sample after Analysis
Dispose of Sample after 50 days Standard TAT - 7 to 10 Business days D Special TAT - 24 hr - 48 hr - 72 hr - 5 b. days TAT begins when sample is received at lest facility.
 TAT for samples roc'd alter 3 pm witt begin on the next business day. All TAT's are subject to isboratory approval and customer consent. ☐ Fax results when available to ( DATE RESULTS NEEDED:



#### **ATTACHMENT IV**

Laboratory Analytical Report Groundwater Samples Collected May 30, 1997

June 9, 1997

Jun-09-97 02:57P CEA-VT Jun-09-97 01:32P



Mannehuedti Certification M-MA 231
Consection Approval @ PH 0777
Rhade Lifered @ SE & Meleo # 10/0
New Hampshire ID @ 25/876
New York ID #11293
Plantin HRS#7448

CEA, Inc. P.O. Box 1246 White River Junction, VT 05001

Ann: Paul Renouf

Client Project No.: VT014972 Location: Allen Residence, VT

Lab ID No	Client ID	Analysis Requested
AA 77005	14H-2	RPA Method 602
AA77006	HW-2	ZPA Nothed 602
AA77007	Mar-3	22A Nethod 602
3 B 77 A A A	141 - C	EPA Method 602

President Laboratory Director

ENVIRONMENTAL AHALYSES

| | Almgren Drive + Agawam, Messethusers 01001 - 413-789-9018 - FAX 413-789-4076

Jun-09-97 01:32P

# SPECTRUM ANALYTICAL, INC. Laboratory Report

Sample ID: MW-1 Lab ID No: AAT7805 Location: Allen Besidence, VT Client Job No: VT014972

Matrix: Water Sampled on 05/30/97 by CEA Received on 06/02/97 by AM QC and Data Review by

Preservative: Refrigeration, HCl Container: 2 VOA Viala Condition of Sample as Received: Satisfactory Delivered by: Colorier

### Volatile Aromatics EFA Method 602/9020

Parameter	Result (ugs.)	MDL	Analogad	A
Benzene	Not detected	1	Amalyzod 06/06/97	Amelyst
Toluene	Not detected	1	96/98/97	NB
Ethylbenzene	Not detected	1	06/04/97	NB
m,p-Xylenes	Not detected	2	06/09/97	NB
o-Xylene	Not detected	1	06/08/97	NB
Chlorobenzene	Not detected	1	06/08/97	NB
1,2-Dichlorobenzene	Not detected	1	06/04/97	NB
1,3-Dichlorobenzene	Not detected	1	06/08/97	NB
1,4-Dichlorobenzene	Not detected	1	06/08/97	NB
Methyl-t-butyl-other	Not detected	1	06/08/97	NB
TFT Surrogate Recovery (%)	113		06/08/97	NB
BFB Surrogate Recovery (%)	Not detected		06/04/97	NB

Jun-09-97 01:32P

# SPECTRUM ANALYTICAL, INC. Laboratory Report

Sample ID: MW-2 Lah ID No: AA77006 Location: Alles Residence, VI Client Job No: VT014972

Matrix: Water Sampled on 05/30/97 by CEA Received on 05/02/97 by AM QC and Data Review by

Preservative: Refriguration, HCl Continuer: 2 VOA Viels Condition of Sample as Received: Satisfactory Delivered by: Courier

#### **Volotile Arometics** EPA Method 602/8020

Parameter	Result (ug/L)	MDL	Anaboud	Amalusi
Benzene	Not detected	1	Analysed 06/08/97	Azalyei NB
Toluene	Not detected	1	06/06/97	NB
Ethylbenzenc	Not detected	1	06/08/97	NB
m.p-Xylenes	Not detected	2	06/08/97	NB
o-Xylene	Not detected	1	06/08/97	NB
Chiorobenzene	Not detected	1	96/06/97	NB
1.2-Dichlorobonzene	Not detected	1	96/08/97	NB
1,3-Dichlorobenzene	Not detected	1	06/08/97	NB
1,4-Dichiorobenzene	Not detected	1	06/08/97	NB
Methyl-t-butyl-ether	Not detected	1.	06/08/97	NB
TFT Surrogate Recovery (%)	110		06/08/97	NB
BFB Surrogate Receivery (%)	Not detected		06/01/97	NB

P.04

Jun-09-97 01:33P

# SPECTRUM ANALYTICAL, INC. Laboratory Report

Sample ID: MW-3 Lab ID No: AA77807

Matrix: Water Sampled on 05/30/97 by CEA Received on 05/02/97 by AM OC and Data Review by Location: Allen Residence, VT Client Job No: VT014972

Preservative: Refrigeration, HCl Container: 2 VOA Vials Condition of Satrola - B

Condition of Satisfactory Delivered by: Courier

#### Volatile Arometics EPA Method 602/8020

Faremole:	Result (ug/L)	MDL.	المسلسية	
Benzebe	Not detected	1	06.05/97	Amelyet NB
Tolucne	Not detected	1	06/08/97	NB
Ethylbenzene	Not detected	1	06/08/97	NB
m.p-Xylenes	Not detected	2	06/06/97	NB
o-Xylene	Not detected	1	06/06/97	NB
Chlorobenzone	Not detected	1	06/08/97	NB
1.2-Diehlorobenzone	Not detected	1	06/06/97	NB
13-Dichlorobenzene	Not detected	1	06/08/97	NB
1.4-Dichlorobenzene	Not detected	1	06/08/97	NB
Methyl-t-butyl-ether	Not detected	1	U <b>6/08/97</b>	NB.
NFT Surrogate Recovery (%)	111		06/00/9?	NB
BFB Surrogate Recovery (%)	Not detected		06/08/97	NB

Sample ID: MW-4 Lab ID No: AA77008

Matrix: Water Sampled on 05/30/97 by CRA Received on 06/02/97 by AM QC and Data Review by

Location: Allen Residence, VI Client Job No: VT014972

Preservative: Refrigaration, HCI
Container: 2 VOA Visia
Condition of Sample as Received: Satisfactory
Delivered by: Courier

# Vointile Arometics EPA Method 602/8020

Parameter	Result (ug/L)	MDL		
Benzene	Not detected	1	Amalyzed 06/08/97	Amairet
Toluens	Not detected	4		Amalyet NB
Ethylhenzene	• •	1	<b>06/08/9</b> 7	NB
m.p-Xylenes	Not detected	1	06/08/97	NB
·- ·	Not detected	2	06/08/97	NB
o-Xylens	Not detected	1	06/06/97	
Chlorobenzene	Not detected	1		NE
1,2-Dichlorobenzenc	Not detected	1	06/08/97	NB
1,3-Dichlorobenzone	Not detected		<b>06/08/9</b> 7	NB
1,4-Dichlorohenzene		I I	06/08/97	NB
Methyl-t-butyl-ether	Not detected	1	06/08/97	NB
month-r-outh-emet	Not detected	1	06/08/97	NB
TFT Surrogate Recovery (%)	105			
BFB Surrogate Recovery (%)			06/08/97	NB
	Not detected		06/08/97	NB

# Spectrum Analytical, Inc. Laboratory Espert Supplement

#### References

Methods for the Determination of Organic Compounds in Drinking Water. EPA-600/4-88/039, EMSL 1988.

Methods for Chemical Analysis of Water and Waster, EPA 600/4-79-020. EMSL 1983.

Methods for Organic Chemical Analysis of Municipal and Industrial Wastewator. EPA 600/4-82-057. EMSL 1982.

Test Methods for Evaluating Solid Waste. Physical/Chemical Methods. EPA SW-846. 1986.

Standard Methods for the Examination of Water and Waster, APHA-AWWA-WPCF, 16th Edition, 1985.

Standard Methods for Comparison of Waterborns Patroleum Oile by Gas Chromatography. ASTM D 3328, 1982.

Oil Spill Mentification System. U.S. Coast Quard CO-13-52-77, 1977,

Handbook for Analytical Quality Control in Weter and Westewater Laboratories. EPA 600/4-79-019. EMSL 1979.

Choosing Cost-Effective QA/QC (Quality Assurance/Quality Control) Programs for Chemical Analyses. EPA 600/4-85/056. EMSL 1985.

#### Report Notations

Not Datected, Not Det, ND or nd	•	The compound was not detected at a concentration equal to or above the established method detection limit.
ИС	=	Hot Calculated
NCI	~	EPA Maximum Contamination Laval
VOA	_	. Volatile Organic Analysis
	-	4-Bromofiverobensens (an Coa coa
p-D?#	•	1, 4-Difiuorebenzene (an eta sas commentes
CLR-d5	-	-//AVEQQUIEGNO"G) (AN EDA EDA COLONIA
BCP	_	6 8 COND L COLORODEODENA (AN FRE CO) COMMENTAL
TPT	-	
Decachlorobiphenyl	•	(an EPA 608/2080 Surrogeta)

#### Definitions

Surrogate Recovery = The recovery (expressed as a percent) of a non-method analyte (see surrogates listed above) added to the sample for the purpose of monitoring system performance.

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%RPD = (<u>value1 - value2</u>) \* 100% #Vs. value

# CHAIN OF CUSTODY RECORD



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# ALLON RESIDENCE SCIL REMOVAL 5-30-97

- C/- 11			
EXCAVATION #1 FEUTIME DRAIN CETTERLY	SAMPLE #	DEPTH	Voc (PAU)
	,	I'	6.0
FEOTING DICAM	2	1.5	0.0
11/2	3	2'	0.5
2 N	4	3'	0.0
	5	3'	18.0
$S'$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$	Ŀ	3	22.0
	7	2.5	11.0
Convent of The	8	2_	20
STONE BLOCK	9	2.5	22.0
	10	4	0.0
	$\mu$	4.5	0.0

	EXCAVATION #2 DRAWAGE DITCH		SAMAL	ISA	vec <u>Pm</u>
	ROAD		1 2 3 4	6"	0.0 6.0 2.0 3.0
h A	B m/2		5 6 7 8	1'2'6"	0.0 0.0 1.0 2.0 0.0
2'	- 25'	Convent		6" 2'	0.0 0.0

COMPOSITE SAMPLES TAKEN FROM THE WALLS AND BOTTOM OF BOTTH EXCALATION



SOILS CONTAINING VIRGIN PETROL	EUM OILS
BILL OF LADING # Nº 14067 PROJECTAU	· · · · · · · · · · · · · · · · · · ·
AUTHORIZED SIGNATURE:	5/30/97
FACILITY:	TRANSPORTER NAME/ADDRESS:
MTS, INC. RT. 4, 9, & 202	GREAT NORTHERN ENV. SERV.
CHICHESTER, NH	P. 0. BOX 175
(603) 798-4557	BATH, NH 03740
PLANT LOCATION: LITTLETON, NH	TELEPHONE
GENERATOR NAME/ADDRESS:	SITE OF GENERATION:
KH. TON ALLEN & HRS. ANY ALLEN	ALLEN RESIDENCE
P. O. BOX 4027 ST. JOHNBURY, VT 05819	OLD WATERFORD ROAD
	EAST ST. JOHNSBURY, VT
CONTACT PERSON: TON ALLEN	
TELEPHONE: (802)-748-5221	
SOIL DESCRIPTION:	QUANTITY: WT(TONS) VOLICUIVOS
GASOLINE KEROSENE NO. 2 OIL XX NO. 4 OIL	SHIPPED TO DATE
NO 6 OIL OTHER	THIS LOAD (EST.)
	REMAINING TO BE
	SHIPPED
CONSULTANT: (if Applicable)	
	The state of the s
NAME: GRIFFIN INTERNATIONAL	ADDRESS: P. O. BOX 943 WILLISTON, VT 05495
NAME: GRIFFIN INTERNATIONAL TELEPHONE:	ADDRESS: P. O. BOX 943 WILLISTON, VT 05495
NAME: GRIFFIN INTERNATIONAL TELEPHONE:NO ANALYSIS ATTACHEDYESNO	WILLISTON, VT 05495
NAME: GRIFFIN INTERNATIONAL TELEPHONE: ANALYSIS ATTACHEDYESNO VOLATILES (AS BENZENE)PPM	WILLISTON, VT 05495  TOTAL PETRO. HYDROCARBON(TPH)PPM
NAME: GRIFFIN INTERNATIONAL TELEPHONE: ANALYSIS ATTACHEDYESNO VOLATILES (AS BENZENE)PPM GENERATORS SIGNATURE: I hereby certify that the	TOTAL PETRO. HYDROCARBON(TPH) PPM information provided is a true representation of the
NAME: GRIFFIN INTERNATIONAL TELEPHONE: ANALYSIS ATTACHEDYESNO VOLATILES (AS BENZENE)PPM	TOTAL PETRO. HYDROCARBON(TPH)  information provided is a true representation of the ain other constituents which fall within the definitions
NAME: GRIFFIN INTERNATIONAL TELEPHONE: ANALYSIS ATTACHEDYESNO VOLATILES (AS BENZENE)PPM GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not contact of hazardous waste as defined in 40CFR260 and appropriate to the soils do not contact th	TOTAL PETRO. HYDROCARBON(TPH)  information provided is a true representation of the ain other constituents which fall within the definitions
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NAME: GRIFFIN INTERNATIONAL  TELEPHONE:  ANALYSIS ATTACHEDYESNO  VOLATILES (AS BENZENE)PPM  GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not contact of hazardous waste as defined in 40CFR260 and application waste as defined in 40CFR260 and application signature (IF APPLICABLE)  TRUCK TRACTOR REGISTRATION TRAILER REGIST  TRANSPORTERS SIGNATURE:	TOTAL PETRO. HYDROCARBON(TPH)  information provided is a true representation of the ain other constituents which fall within the definitions plicable State regulations.  DATE:
NAME: GRIFFIN INTERNATIONAL  TELEPHONE:  ANALYSIS ATTACHED YES NO  VOLATILES (AS BENZENE) PPM  GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not contact of hazardous waste as defined in 40CFR260 and approximate (IF APPLICABLE)  TRUCK MACTOR REGISTRATION TRAILER REGIST  TRANSPORTERS SIGNATURE: ARE REGIST  RECEIVING CLERK SIGNATURE: ARE REGIST	TOTAL PETRO. HYDROCARBON(TPH)  information provided is a true representation of the ain other constituents which fall within the definitions plicable State regulations.  DATE:
NAME: GRIFFIN INTERNATIONAL  TELEPHONE:  ANALYSIS ATTACHED YES NO  VOLATILES (AS BENZENE) PPM  GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not contact of hazardous waste as defined in 40CFR260 and application signature (IF APPLICABLE)  TRUCK PRACTOR REGISTRATION TRAILER REGIST  TRANSPORTERS SIGNATURE: ARRIVED AMAPM	TOTAL PETRO. HYDROCARBON(TPH)  information provided is a true representation of the ain other constituents which fall within the definitions plicable State regulations.  DATE:
NAME: GRIFFIN INTERNATIONAL  TELEPHONE:  ANALYSIS ATTACHED YES NO  VOLATILES (AS BENZENE) PPM  GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not contact of hazardous waste as defined in 40CFR260 and application signature (IF APPLICABLE)  TRUCK TRACTOR REGISTRATION TRAILER REGIST  TRANSPORTERS SIGNATURE: ARRIVED AM/PM  TRUCK WT:FULL TICKE	TOTAL PETRO. HYDROCARBON(TPH)  information provided is a true representation of the ain other constituents which fall within the definitions plicable State regulations.  DATE:
NAME: GRIFFIN INTERNATIONAL  TELEPHONE:  ANALYSIS ATTACHED YES NO  VOLATILES (AS BENZENE) PPM  GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not contact of hazardous waste as defined in 40CFR260 and application signature (IF APPLICABLE)  TRUCK MACTOR REGISTRATION TRAILER REGIST  TRANSPORTERS SIGNATURE: TRAILER REGIST  ARRIVED AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFT AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FU	TOTAL PETRO. HYDROCARBON(TPH)  Information provided is a true representation of the ain other constituents which fall within the definitions plicable State regulations.  DATE: S-30-97  D
NAME: GRIFFIN INTERNATIONAL  TELEPHONE:  ANALYSIS ATTACHED YES NO  VOLATILES (AS BENZENE) PPM  GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not contact of hazardous waste as defined in 40CFR260 and application signature (IF APPLICABLE)  TRUCK MACTOR REGISTRATION TRAILER REGIST  TRANSPORTERS SIGNATURE: TRAILER REGIST  ARRIVED AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFT AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FULL FIFTE AM/PM  TRUCK WT: FU	TOTAL PETRO. HYDROCARBON(TPH)  information provided is a true representation of the ain other constituents which fall within the definitions plicable State regulations.  DATE:
TELEPHONE:  ANALYSIS ATTACHED YES NO VOLATILES (AS BENZENE) PPM  GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not contact the soils to be shipped and that the soils do not contact the materials to be shipped and that the soils do not contact the s	TOTAL PETRO. HYDROCARBON(TPH)  Information provided is a true representation of the ain other constituents which fall within the definitions plicable State regulations.  DATE: S-30-97  D
TELEPHONE:  ANALYSIS ATTACHEDYESNO  VOLATILES (AS BENZENE)PPM  GENERATORS SIGNATURE: I hereby certify that the materials to be shipped and that the soils do not contact in the soils to be shipped and that the soils do not contact in the	TOTAL PETRO. HYDROCARBON(TPH) PPM information provided is a true representation of the ain other constituents which fall within the definitions plicable State regulations.  DATE: S-30-97



#### ATTACHMENT V

**Bill of Lading and Field Notes** 



# ATTACHMENT VI

Laboratory Analytical Report Soil Samples Collected May 30, 1997



Massachusetts Certification M-MA 138 Connecticut Approval # PH 0777 Rhode Island # 98 & Maine # n/a New Hampshire ID # 253896 New York ID #11393 Florida HRS87448

CEA, Inc. P.O. Box 1246 White River Junction, VT 05001 June 9, 1997

Attn: Paul Renouf

Client Project No.: VT014972 Location: Allen Residence, VT

Lab ID No.	Client ID	Analysis Requested
AA77003	EXC-1	TPH by GC
AA77004	EXC-2	TPH by GC

President Laborator Director

Laboratory Report

Client ID: EXC-1 Lab ID No.: AA77003

Matrix: Soil Collected: 05/30/97 by CEA Received on 06/02/97 by AM QC and Data Review by DDR Location: Allen Residence, VT Client Job No.: VT014972

Preservative: Refrigeration Container: 1 Glass Soil Jar

Condition of Sample as Received: Satisfactory

Delivered by: Courier

# Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter Total Hydrocarbons (GC)	Result (mg/Kg)  Not detected	MDL	<b>Extracted</b> 06/05/97	<b>Analyzed</b> 06/05/97	Analyst ATP
Fingerprint based quantificato	n:				
Gasoline	Not detected	40	06/05/97	06/05/97	ATP
Fuel Oil #2	Not detected	40	06/05/97	06/05/97	ATP
Fuel Oil #2 Fuel Oil #4	Not detected	40	06/05/97	06/05/97	ATP
Fuel Oil #6	Not detected	80	06/05/97	06/05/97	ATP
Motor Oil	Not detected	80	06/05/97	06/05/97	ATP
Ligroin	Not detected	40	06/05/97	06/05/97	ATP
Aviation Fuel	Not detected	40	06/05/97	06/05/97	ATP
Other Oil	Not detected	80	06/05/97	06/05/97	ATP
Unidentified	Not detected		06/05/97	06/05/97	ATP
% Solids	83.6	0.1	06/04/97	06/05/97	KS

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.

Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.

Fuel Oil #4 - Includes #4 Fuel Oil.

Fuel Oil #6 - includes #6 oil and bunker "C" oil.

Motor Oil - includes virgin and waste automobile.

Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.

Aviation Fuels - includes Kerosene, Jet A and JP-4.

Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A \* in the results column indicates the petroleum calibration used to quantify unidentified samples.

Laboratory Report

Client ID: EXC-2 Lab ID No.: AA77004

Matrix: Soil Collected: 05/30/97 by CEA Received on 06/02/97 by AM QC and Data Review by DDR

Location: Allen Residence, VT Client Job No.: VT014972

Preservative: Refrigeration Container: 1 Glass Soil Jar

Condition of Sample as Received: Satisfactory Delivered by: Courier

## Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter Total Hydrocarbons (GC)	Result (mg/Kg) 95	MDL	Extracted 06/05/97	<b>Analyzed</b> 06/07/97	Analyst ATP
Total Hydrocarbons (GC)	75		00,00,0	22/47/27	
Fingerprint based quantification:					
Gasoline	Not detected	40	06/05/97	06/07/97	ATP
Fuel Oil #2	Not detected	40	06/05/97	06/07/97	ATP
Fuel Oil #4	Not detected	40	06/05/97	06/07/97	ATP
Fuel Oil #6	Not detected	80	06/05/97	06/07/97	ATP
Motor Oil	95	80	06/05/97	06/07/97	ATP
Ligroin	Not detected	40	06/05/97	06/07/97	ATP
Aviation Fuel	Not detected	40	06/05/97	06/07/97	ATP
Other Oil	Not detected	80	06/05/97	06/07/97	ATP
Unidentified	Not detected		06/ <b>05/97</b>	06/07/97	ATP
% Solids	83.3	0.1	06/04/97	06/05/97	KS

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.

Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.

Fuel Oil #4 - Includes #4 Fuel Oil.

Fuel Oil #6 - includes #6 oil and bunker "C" oil.

Motor Oil - includes virgin and waste automobile.

Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.

Aviation Fuels - includes Kerosene, Jet A and JP-4.

Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A \* in the results column indicates the petroleum calibration used to quantify unidentified samples.

## Spectrum Analytical, Inc. Laboratory Report Supplement

#### References

Methods for the Determination of Organic Compounds in Drinking Water. EPA-600/4-88/039. EMSL 1988.

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. EMSL 1983.

Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater. EPA 600/4-82-057, EMSL 1982.

Test Methods for Evaluating Solid Waste. Physical/Chemical Methods. EPA SW-846. 1986.

Standard Methods for the Examination of Water and Wastes. APHA-AWWA-WPCF. 16th Edition. 1985.

Standard Methods for Comparison of Waterborne Petroleum Oils by Gas Chromatography. ASTM D 3328, 1982.

Oil Spill Identification System, U.S. Coast Guard CG-D-52-77, 1977.

Handbook for Analytical Quality Control in Water and Wastewater Laboratories. EPA 600/4-79-019. EMSL 1979.

Choosing Cost-Effective QA/QC (Quality Assurance/Quality Control) Programs for Chemical Analyses. EPA 600/4-85/056. EMSL 1985.

# Report Notations

```
The compound was not detected at a concentration
    Not Detected, =
                         equal to or above the established method detection
Not Det, ND or nd
                         limit.
                NC =
                         Not Calculated
               MCL = EPA Maximum Contamination Level
                         Volatile Organic Analysis
               VOA =
                        4-Bromofluorobenzene (an EPA 624 Surrogate)
               BFB =
            p-DFB = 1,4-Difluorobenzene (an EPA 624 Surrogate)
CLB-d5 = Chlorobenzene-d5 (an EPA 624 Surrogate)
               BCP = 2-Bromo-I-chloropropane (an EPA 601 Surrogate)
               TFT = a,a,a-Trifluorotoluene (an EPA 602 Surrogate)
Decachlorobiphenyl = (an EPA 608/8080 Surrogate)
```

#### **Definitions**

Surrogate Recovery = The recovery (expressed as a percent) of a non method analyte (see surrogates listed above) added to the sample for the purpose of monitoring system performance.

Matrix Spike Recovery = The recovery (expressed as a percent) of method analytes added to the sample for the purpose of determining any effect of sample composition on analyte recovery.

Laboratory Replicate = Two sample aliquots taken in the analytical laboratory and analyzed separately with identical procedures. Analyses of laboratory duplicates give a measure of the precision associated with laboratory procedures, but not with sample collection, preservation, or storage procedures.

Field Duplicate = Two separate samples collected at the same time and place under identical circumstances and treated exactly the same throughout field and laboratory procedures. Analysis of Field duplicates give a measure of the precision associated with sample collection, preservation and storage, as well as with laboratory procedures.

Relative Percent Difference (% RPD) = The precision measurement obtained on duplicate/replicate analyses. %RPD is calculated as:

%RPD = (<u>value1 - value2</u>) \* 100% ave. value

# CHAIN OF CUSTODY RECORD



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#### **ATTACHMENT VII**

Laboratory Analytical Report Adjacent Resident's Water Supply Well

Jun 26'97

15:54 No.006 P.04

# SPECTRUM ANALYTICAL, INC. Laboratory Report

Sample ID: ALLNOW Lab ID No: AA76263 Location: Allen Residence - St. J., VT Client Job No: VT014971

Matrice Water Sampled on 05/12/97 by CRA-VT Received on 05/13/97 by DDR QC and Data Review by Preservative: Refrigeration, HCl Container: 2 VOA Vials Condition of Sample as Received: Satisfactory Delivered by: Courier

#### **Volatile Aromatics**

Parameter	Result (ug/L)	MDL	Analyzed	Anaivsi
Benzone	Not detected	1	06/25/97	NB
Toluene	Not detected	1	06/25/97	NB
Ethylbenzene	Not detected	1	06/25/97	NB
m,p-Xylenes	Not detected	2	06/25/97	NB
o-Xylone	Nor detected	1	06/25/97	NB
Chlorobenzene	Not detected	1	06/25/97	NB
= =	Not detected	1	06/25/97	NB
1,2-Dichlorobenzene	Not detected	1	06/25/97	NB
1,3-Dichlorobenzene	Not detected	1	06/25/97	NB
1,4-Dichiorobenzene Methyl-t-butyl-ether	Not detected	1	06/25/97	NB
			04 105 107	NB
TFT Surrogate Recovery (%)	105		06/25/97	
BFB Surrogate Recovery (%)	Not detected		06/25/97	NB

Jun 26'97

15:55 No.006 P.05

### SPECTRUM ANALYTICAL, INC. Laboratory Report

Sample ID: CNLYDW Lab ID No: AA78264

Matrix: Water Sampled on 06/12/97 by CEA-VT Received on 06/13/97 by DDR QC and Data Review by

Location: Allen Residence - St. J., VT

Client Job No: VT014971

Preservative: Refrigeration, HCl Container: 2 VOA Vials Condition of Sample as Received: Satisfactory Delivered by: Courter

### **Volatile Aromatics**

Parameter	Result (ug/L)	MDL	Analyzed	Analysi
Benzene	Not detected	ì	06/25/97	NB
Toluene	Not detected	1	06/25/97	NB
Ethylbenzene	Not detected	1	06/25/97	NB
m,p Xylenes	Not detected	2	06/25/97	NB
o-Xylene	Not detected	1	06/25/97	NB
Chlorobenzene	Not detected	1	06/25/97	NB
1.2-Dichlorobenzene	Not detected	1	06/25/97	NB
1.3-Dichlorobenzene	Not detected	1	06/25/97	NB
1,4-Dichlorobenzene	Not detected	1	06/25/97	NB
Methyl-t-butyl-cther	Not detected	1	06/25/97	NB
TFT Surrogate Recovery (%)	99		06/25/97	NB
BFB Surrogate Recovery (%)	Not detected		06/25/97	NB

15:55 No.006 P.06 TEL:

SPECTRUM ANALYTICAL, INC. Laboratory Report

Sample ID: RCDW Lab ID No: AA78265

Matrix: Water Sampled on 06/12/97 by CEA-VT Received on 06/13/97 by DDR QC and Data Review by

Location: Allen Residence - St. J., VT Client Job No: VT014971

Proservative: Refrigeration, IICi Container: 2 VOA Vials Condition of Sample as Received: Satisfactory Delivered by: Courier

#### Volatile Aromatics EPA Method 602/8020

Parameter	Result (ug/L)	MDL	Analyzed	Analyst
Renzenc	Not detected	1	U6/25/97	NB
Toluene	Not detected	1	06/25/97	NB
Bihyibenzene	Not detected	1	06/25/97	NB
m.p-Xylenes	Not detected	2	06/25/97	NB
o Xylene	Not detected	1	05/25/97	NB
Chlorobenzene	Not detected	1	06/25/97	NB
1.2-Diehloroenzene	Not detected	1	06/25/97	NB
1.3-Dichlorobenzene	Not detected	1	06/25/97	NB
1,4-Dichlorobenzene	Not detected	1	06/25/97	NB
Methyl-t-butyl-other	Not detected	1	06/25/97	NB
TFT Surrogate Recovery (%)	91		U6/25/97	NB
BFB Surrogate Recovery (%)	Not detected		06/25/97	NR

Jun 26'97

15:56 No.006 P.07

## SPECTRUM ANALYTICAL, INC.

Laboratory Report

Sample ID: FRRIIDW

Location: Allen Residence - St. J., VT Client Job No: VT014971

Lab ID No: AA78266

Matrix: Water Sampled on 06/12/97 by CEA-VT Received on 06/13/97 by DDR QC and Data Review by

Preservative: Refrigeration, HCl Container: 2 VOA Vials Condition of Sample as Received: Satisfactory Delivered by: Contrier

#### **Volatile Arometics** RPA Method 602/8020

Parameter	Result (ug/L)	MDL	Analyzed	Analyst NB
Benzene	Not detected	1	06/25/97	
Toluene	Not detected	1	06/25/ <del>9</del> 7	NB
Ethylbenzenc	Not detected	1	06/25/97	NR
m,p-Xylones	Not detected	2	06/25/97	NB
o-Xylene	Not detected	1	06/25/97	NB
Chlorobenzene	Not detected	1	06/25/97	NB
1,2-Dichlorobenzene	Not detected	1	06/25/97	NB
1,3-Dichlorobenzone	Not detected	1	06/25/97	NB
1,4-Dichlorobenzene	Not detected	1	(16/25/97	NB
Methyl-t-butyl-other	Not detected	1	06/25/97	NB
TFT Surrogate Recovery (%)	96		06/25/97	NB
BFB Surrogate Recovery (%)	Not detected		06/25/97	NB

Jun 26'97 15:56 No.006 P.08

## SPECTRUM ANALYTICAL, INC.

Laboratory Report

Sample ID: BRSSNDW Lab ID No: AA78267

Location: Allen Residence - St. J., VT Client Job No: VT014971

Matrix: Water Sampled on 06/12/97 by CEA-VT Received on 06/13/97 by DDR QC and Data Review by

Preservative: Refrigeration, HCi Container: 2 VOA Viols Condition of Sample as Received: Satisfactory Delivered by: Courier

#### Volatile Aromatics EPA Method 602/8020

Parameter	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1	A <b>nalyzed</b> 06/25/97	NB
Toluene	Not detected	1	06/25/97	NB
Ethylbonzene	Not detected	1	06/25/97	NB
m,p-Xyiones	Not detected	2	06/25/97	NB
o-Xylenc	Not detected	1	06/25/97	NB
Chlarehenzens	Not detected	1	06/25/97	NB
1,2-Dichlorobenzenc	Not detected	1	06/25/97	NB
1,3-Dichlorobenzene	Not detected	1	06/25/97	NB
•	Not detected	-	06/25/97	NB
1,4-Dichlorobenzene	Not detected	i	06/25/97	NB
Methyl-t-butyl-ether	1401 Atlataka	•		
TFT Surrogate Recovery (%)	97		06/25/97	NB
BIB Surrogate Recovery (%)	Not detected		06/25/97	NB

Jun 26'97

15:57 No.006 P.09

### SPECTRUM ANALYTICAL, INC. Laboratory Report

Sample ID: TRIPBLNK Lab ID No: AA78268

Matrix Water Sampled on 02/19/97 by CEA-VT Received on 06/13/97 by DDR QC and Data Review by

Location: Allen Residence - St. J., VT

Client Job No: VT014971

Preservative: Refrigeration, HCl
Container: 1 VOA Vial
Condition of Sample as Received: Satisfactory
Delivered by: Courier

#### Volatile Aromatics EPA Method 602/8020

Parameter	Result (ug/L)	MDL	Analyzed	Analyst NB
Benzone	Not delected	1	06/25/97	NB T
Toluene	Not detected	1	06/25/97	NH
Ethylbenzene	Not detected	1	06/25/97	NB
	Not detected	2	06/25/97	NR
m,p-Xylones	Not detected	1	06/25/97	NB
o-Xylene Chlorobenzene	Not detected	1	06/25/97	NB
1.2-Dichlorobenzono	Not detected	1	06/25/97	NB
1,3-Dighlombenzene	Not detected	1	06/25/97	NB
1,4-Dichlorobenzene	Not detected	1	06/25/97	NB
Methyl-t-butyl-ether	Not detected	1	06/25/97	NB
TPT Surrogate Recovery (%)	112		06/25/97	NB
BFB Surrogate Recovery (%)	Not detected		06/25/97	NB

Laboratory Report

Sample ID: BRISSNDW Lab ID No: AA75951

Matrix: Water Sampled on 05/15/97 by CEA Received on 05/16/97 by AM OC and Data Review by DDR

Location: St. Johnsbury, VT

Client Job No:

Preservative: Refrigeration, HCl Container: 2 VOA Vials Condition of Sample as Received: Satisfactory Delivered by: Courier

#### Volatile Aromatics

Parameter	Result (ug/L)	MDL		
Benzene	Not detected	1	Analyzed 05/20/97	Analyst NB
Toluenc	Not detected	1	05/20/97	NB
Ethylbonzene	Not detected	1	05/20/97	NB
m,p-Xylenes	Not detected	2	05/20/97	NB
o-Xylene	Not detected	1	05/20/97	NB
Chlorobenzene	Not detected	3	05/20/97	NB
1,2-Dichlorobonzone	Not detected	1	05/20/97	NB
1,3-Dichlorobenzene	Not detected	1	05/20/97	NB
1,4-Dichlorobenzene	Not detected	1	05/20/97	NB
Methyl-t-butyl-ether	Not detected	1	05/20/97	NB
TFT Surrogate Recovery (%)	113		05/20/97	NB
BFB Surrogate Recovery (%)	Not detected		05/20/97	NB

Laboratory Report

Sample ID: FERRINDW Lab ID No: AA75950

Location: St. Johnsbury, VT

Client Job No:

Matrix: Water Sampled on 05/15/97 by CEA Received on 05/16/97 by AM QC and Data Review by DDR

Preservative: Refrigeration, HCl Container: 2 VOA Vials Condition of Sample as Received: Satisfactory Delivered by: Courier

#### Volatile Aromatics

Parameter	Result (ug/L)	MDL	Analyzed	Anniyst
• • • • • • • • • • • • • • • • • • • •	Not detected	1	05/20/97	NB
Benzene Toluene	Not detected	1	05/20/97	NB
Ethylhonzene	Not detected	1	05/20/97	NB
m,p-Xylones	Not detected	2	05/20/97	NB
o-Xylenc	Not detected	1	05/20/97	NB
Chlorobenzone	Not detected	1	05/20/97	NB
1,2-Dichlorobenzene	Not detected	1	05/20/97	NB
1,3-Dichlorobenzene	Not detected	1	05/20/97	NB
1,4-Dichlorobenzene	Not detected	1	05/20/97	NB
Methyl-t-butyl-other	Not detected	1	05/20/97	NB
TFT Surrogate Recovery (%)	113		05/20/97	NB
BFB Surrogate Recovery (%)	Not detected		05/20/97	NB

**Laboratory Report** 

Sample ID: RICE-DW Lab ID No: AA75949

Location: St. Johnsbury, VT Client Job No:

Matrix: Water Sampled on 05/15/97 by CEA Received on 05/16/97 by AM QC and Data Review by DDR

Preservative: Refrigeration, HCl Container: 2 VOA Vials Condition of Sample as Received: Satisfactory Delivered by: Courier

#### **Volatile Aromatics**

Parameter	Result (ug/L)	MDL	Analyzed	Analyst
Benzenc	Not detected	1	05/20/97	NB
Toluene	Not detected	1	05/20/97	NB
Ethylbenzene	Not detected	1	05/20/97	NB
m,p-Xylenes	Not detected	2	05/20/97	NB
o-Xylene	Not detected	1	05/20/97	NB
Chlorobenzene	Not detected	1	05/20/97	NB
1,2-Dichlorobenzone	Not detected	1.	05/20/97	NB
1,3-Dichlorobenzene	Not detected	1	05/20/97	NB
1,4-Dichlorobenzene	Not detected	1	05/20/97	NB
Methyl-t-butyl-ether	Not detected	1	05/20/97	NB
TFT Surroyate Recovery (%)	117		05/20/97	NB
BFB Surrogate Recovery (%)	Not detected		05/20/97	NB

Laboratory Report

Sample ID: CONLY-DW Lab 1D No: AA75948

Location: St. Johnsbury, VI

Client Job No:

Matrix: Water Sampled on 05/15/97 by CEA Received on 05/16/97 by AM QC and Data Review by DDR

Preservative: Refrigeration, HCl Container: 2 VOA Vials Condition of Sample as Received: Satisfactory Delivered by: Courier

#### **Volatile Aromatics**

Parameter	Result (ug/L)	MDL	â.w.a63	Alauak
Benzene	Not detected	1	<b>Analyzed</b> 05/20/97	Analyst NB
Tolucne	Not detected	1	05/20/97	NB
Ethylbenzene	Not detected	1	05/20/97	NB
m,p-Xylenes	Not detected	2	05/20/97	NB
o-Xylene	Not detected	1	05/20/97	NB
Chlorobenzeno	Not detected	1	05/20/97	NB
1,2-Dichlorobenzeno	Not detected	1	05/20/97	NB
1,3-Dichlorobenzene	Not detected	1	05/20/97	NB
1,4-Dichlorobenzene	Not detected	1	05/20/97	NB
Methyl-t-butyl-ether	Not detected	1	05/20/97	NB
TFT Surrogate Recovery (%)	114		05/20/97	NB
BFB Surrogate Recovery (%)	Not detected		05/20/97	NB

P.02

P.08

## SPECTRUM ANALYTICAL, INC.

Laboratory Report

Sample ID: ALLEH-DW Lab ID No: AA75947

Location: St. Johnsbury, VT

Client Job No:

Matrix: Water Sampled on 05/15/97 by CEA Received on 05/16/97 by AM OC and Data Review by DDR

Preservative: Refrigeration, HCl Container: 2 VOA Vials Condition of Sample as Received: Satisfactory Delivered by: Courier

#### **Volatile Aromatics**

Parameter	Result (vg/L)	MDL		
Benzene	Not detected	1	Analyzed 05/20/97	Analyst NB
Toluene	Not detected	1	05/20/97	NB
Ethylbenzene	Not detected	1	05/20/97	NB
113,p-Xylenes	Not detected	2	05/20/97	NB
o-Xylene	Not detected	1	05/20/97	NB
Chlorobenzene	Not detected	1	05/20/97	NB
1,2-Dichlorobonzone	Not detected	1	05/20/97	NB
1,3-Dichlorobenzene	Not detected	1	05/20/97	NB
1,4-Dichlorobenzene	Not detected	1	05/20/97	NB
Methyl-t-butyl-ether	Not detected	1	05/20/97	NB
TFT Surrogate Recovery (%)	116		05/20/97	NB
BFB Surrogate Recovery (%)	Not detected		05/20/97	NB

## Spectrum Analytical, Inc. Laboratory Report Supplement

#### References

Methods for the Determination of Organic Compounds in Drinking Water. EPA-600/4-88/039, EMSL 1988.

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. EMSL 1983.

Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater. EPA 600/4-82-057. EMSL 1982.

Test Methods for Evaluating Solid Waste. Physical/Chemical Methods. EPA SW-846. 1986.

Standard Methods for the Examination of Water and Wastes, APHA-AWWA-WPCF, 16th Edition, 1985.

Standard Methods for Comparison of Waterborne Petroleum Oils by Gas Chromatography. ASTM D 3328, 1982.

Oil Spill Identification System. U.S. Coast Guard CG-D-52-77. 1977.

Handbook for Analytical Quality Control in Water and Wastewater Laboratories. EPA 600/4-79-019. EMSL 1979.

Choosing Cost-Effective QA/QC (Quality Assurance/Quality Control) Programs for Chemical Analyses. EPA 600/4-85/056, EMSL 1985.

#### Report Notations

Not Detected, Not Det, ND or nd	=	The compound was not detected to or above the estimit.				
พธ	=	Not Calculated				
MCL	-	EPA Maximum Contamination Level				
VOA	<b>3.</b> *	Volatile Organic Analysi	5			
BYB	##	4-Bromofluorobenzene				Surrogate)
₽-DFB	=	1,4-Difluorobenzene	(an	EPA	624	Surrogate)
CLB-d5	=	Chlorobenzene-d5				Surrogate)
BCP	~	2-Bromo-1-chloropropana				
TFT	_	e,a,e-Trifluorotoluene		EPA	602	Surrogata)
Decachlorobiphenyl	-	(en EPA 608/8080 Surrogs	rce)			

#### **Definitions**

Surrogate Recovery = The recovery (expressed as a percent) of a non method analyte (see surrogates listed above) added to the sample for the purpose of monitoring system performance.

Matrix Spike Recovery = The recovery (expressed as a percent) of method analytes added to the sample for the purpose of determining any effect of sample composition on analyte recovery.

Laboratory Replicate = Two sample aliquots taken in the analytical laboratory and analyzed separately with identical procedures. Analyses of laboratory duplicates give a measure of the precision associated with laboratory procedures, but not with sample collection, preservation, or storage procedures.

Field Duplicate = Two separate samples collected at the same time and place under identical circumstances and treated exactly the same throughout field and laboratory procedures. Analysis of Field duplicates give a measure of the precision associated with sample collection, preservation and storage, as well as with laboratory procedures

Relative Percent Difference (% RPD) = The precision measurement obtained on duplicate/replicate analyses. %RPD is calculated as:

%RPD = (value) = value2) \* 100% ave, value



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#### REPORT OF LABORATORY ANALYSIS

**CLIENT:** Griffin International

PROJECT NAME: Allen Residence

14/

REPORT DATE: December 11, 1996 DATE SAMPLED: December 6, 1996 PROJECT CODE: GIAR1244

REF.#: 97,679

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody did not indicate sample preservation.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D. Laboratory Director

enclosures



32 James Brown Drive Williston, Vermont 05495 (802) 879-4333 FAX 879-7103

#### EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International DATE RECEIVED: December 10, 1996

PROJECT NAME: Allen Residence REPORT DATE: December 11, 1996

CLIENT PROJ. #: 12964964 PROJECT CODE: GIAR1244

Ref. #:	97,679			
Site:	SW Tap			
Date Sampled:	12/6/96			
Time Sampled:	17:10	]		
Sampler:	PBS			
Date Analyzed:	12/10/96			
UIP Count:	0			
Dil. Factor (%):	100			
Surr % Rec. (%):	98			
		 	<u> </u>	
Parameter	Conc. (ug/L)			
Parameter Benzene	Conc. (ug/L) <1			
Benzene	<1			
Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene	<1 <1			
Benzene Chlorobenzene 1,2-Dichlorobenzene	<1 <1 <1			
Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene	<1 <1 <1 <1			
Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	<1 <1 <1 <1 <1			
Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene	<1 <1 <1 <1 <1 <1			

Note: UIP = Unidentified Peaks TBQ = Trace Below Quantitation NI = Not Indicated

32 James Brown Orive Williston, Vermont 05495 (802) 879-4333

9) 6 79 - 9 CHAIN-OF-CUSTODY RECORD

Project Name: All Pesidence Site Location: 12964964  Endyne Project Number: ARIAWI Company: Contact Name/Phone #:  Las # Sample Location   Starrix   Sample Containers   Field Results Remarks   Required Preservation   Rush   Phone #:    Las # Sample Location   Starrix   Sample Containers   Phone #:		(802) 879-4333		71,67	// -	[7]	68	<b>'</b> 0								
Endyne Project Number:    Company: Contact Name/Phone #:   Sample Contailiers   Price Results/Remarks   Sample   Regulared   Preservation   Results/Remarks   Projec Site L	ct Name: Ollen cocation: 1296	Pe 496		1				-			Billi	ng Address: GI		····		
Table   Sample Location   Matrix   R   M   Date/Time   Field Results/Remarks   Required   Preservation   Road   Preservation   Roa	Endyı	no Danis as North and		-	44	Compai Contact	ıy: Name/	Phone #:	s							
17   17   17   17   17   17   17   17	Lab	# Sam	ple Locat	ion	Matrix	R	O M	Date/Fime		*************	Sec. 1985. 1		sults/Remarks			Rush
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1 pH 6 TKN 11 Total Solids 16 Metals (Specify) 21 EPA 624 26 EPA 8270 B/N or Acid	New You	k State Project: Yes_	No					Requested	Analy	ses		·		······································	<del></del>	· <del></del>
	1	pН	6	TKN		11	Total Soli	ds	16	Metals (Specify)		21	EPA 624	26	EPA 8270 B/N or A	cid
2 Chloride 7 Total P 12 TSS 17 Coliform (Specify) 22 EPA 625 B/N or A 27 EPA 8010/8020	2	Chloride	7	Total P		12	TSS		17	Coliform (Speci	fy)	22	EPA 625 B/N or A			
3 Ammonia N 8 Total Diss. P 13 TDS 18 COD 23 EPA 418.1 28 EPA 8080 Pest/PCB	3		8			13	TDS		18	COD		23	EPA 418.1	28	EPA 8080 Pest/PCI	3
4 Nitrite N 9 BOD, 14 Turbidity 19 BTEX 24 EPA 608 Pest/PCB	<u> </u>		-111						19	BTEX		24	EPA 608 Pest/PCB	150		
5 Nitrate N 10 Alkalinity 15 Conductivity 20 EPA 601/602 25 EPA 8240	[ <del> </del>	<del></del>		·-··		15	Conductiv	rity	20	EPA 601/602		25	EPA 8240			
29 TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)			mi-volatiles	, metals, pesticides, h	terbicides)									,		
30 Other (Specify):	30	Other (Specify):														



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#### REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International

PROJECT NAME: Allen Residence/12964964 DATE REPORTED: December 11, 1996

DATE SAMPLED: December 6, 1996

PROJECT CODE: GIAR1245

REF. #: 97,680

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody record.

Chain of custody did not indicate sample preservation.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy were monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Reviewed by,

Harry B. Locker, Ph.D. Laboratory Director



32 James Brown Drive Williston, Vermont 05495 (802) 879-4333 FAX 879-7103

#### LABORATORY REPORT

#### TOTAL PETROLEUM HYDROCARBONS (TPH) BY MODIFIED EPA METHOD 8100

DATE: December 11, 1996 CLIENT: Griffin International

PROJECT: Allen Residence/12964964

PROJECT CODE: GIAR1245

COLLECTED BY: PBS

DATE SAMPLED: December 6, 1996 DATE RECEIVED: December 10, 1996

Reference #	Sample ID	Concentration (mg/L) <sup>1</sup>
97,680	Supply Well Tap; 17:10	ND²

#### Notes:

- 1 Method detection limit is 1.0 mg/L.
- 2 None Detected

32 James Brown Drive Williston, Vermont 05495 (802) 879-4333

## CHAIN-OF-CUSTODY RECORD

Project Name: Allen Residence Reporting Address: GT Site Location: 12964964  Reporting Address: GT										Billing Address: GT					
Endyr	ne Project Number:		R1245		Compa Contac	ny: Name/	Phone #: PC	>S			Sampler Name: (935) Phone #:				
Lab	# Sam	ple Loca	ilon	Matri	A B	C O M P	Date/Time	Saznj No.	le Containers Type/Size		Field Re	Sults/Remarks	Analysis Required		Rush
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2	Chloride	7	Total P		12	TSS		17	Coliform (Specif	y)	22	EPA 625 B/N or A	27	EPA 8010/8020	
3	Ammonia N	8	Total Diss. P			TDS		18	COD		23	EPA 418.1	28	EPA 8080 Pest/PC	B
4	Nitrite N	9	BOD,			Turbidity		19	BTEX		24	EPA 608 Pest/PCB		7 :	<del></del>
5 29	Nitrate N	10	Alkalinity		15	Conductiv	ty	20	EPA 601/602		25	EPA 8240			
30	TCLP (Specify: volatiles, serr Other (Specify):	n-volatile:	, metals, pesticides, he	rbicides)			·								

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#### REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International

PROJECT NAME: Allen Residence

REPORT DATE: December 12, 1996 DATE SAMPLED: December 10, 1996 PROJECT CODE: GIAR1269

REF.#: 97,744 - 97,747

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D. Laboratory Director

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32 James Brown Drive Williston, Vermont 05495 (802) 879-4333 FAX 879-7103

#### EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International

DATE RECEIVED: December 11, 1996

PROJECT NAME: Allen Residence

REPORT DATE: December 12, 1996

CLIENT PROJ. #: 12964964

PROJECT CODE: GIAR1269

Ref. #:	97,744	97,745	97,746	97,747	
Site:	Trip Blank	Brisson Residence	Ferrin Residence	Conly Residence	
Date Sampled:	12/10/96	12/10/96	12/10/96	12/10/96	
Time Sampled:	8:45	12:45	13:13	13:25	
Sampler:	E. Sandblom	E. Sandblom	E. Sandblom	E. Sandblom	
Date Analyzed:	12/11/96	12/11/96	12/11/96	12/11/96	
UIP Count:	0	0	0	0	
Dil. Factor (%):	100	100	100	100	
Surr % Rec. (%):	99	99	99	100	
Parameter	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)	
Benzene	<1	<1	<1	<1	
Chlorobenzene	<1	<1	<1	<1	
1,2-Dichlorobenzene	<1	<1	<1	<1	
1,3-Dichlorobenzene	<1	<1	<1	<1	
1,4-Dichlorobenzene	<1	<1	<1	<1	
Ethylbenzene	<1	<1	<1	<1	
Toluene	TBQ <1	<1	<1	<1	
Xylenes	<1	<1	<1	<1	
мтве	<10	<10	<10	<10	

Note: UIP = Unidentified Peaks TBQ = Trace Below Quantitation NI = Not Indicated



32 James Brown Drive

#### CHAIN OF CUCTODY DECORD.

	(802) 879-4333		64964			~1147411v	1-OF-C031	OD.	i recor	D					
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Endyne	e Project Number: GIAR	126	9	C	ompa ontac	ny: <i>(</i> t Name/I	Phone#: 石.	SA	-NVB10	M	Sam; Phon	pler Name: E	SANDBU 288	<b>5</b> /11	
Lab (	r Sam	iple Locat	lon	Matrix	G R A B	C O M P	Date/Time	3 2 3 3	ple Containers		Field Re	wits/Remarks	Analysis Required	Sample Preservation	Rush
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	k State Project: Yes_	No	X				Requested .	Analy	yses				<b></b>	<del></del>	····
1 1	рН	6	TKN	1	11	Total Solid	ls	16	Metals (Specify	)	21	EPA 624	26 E	PA 8270 B/N or A	Acid
2	Chloride	7	Total P		12	TSS		17	Coliform (Speci	fy)	22	EPA 625 B/N or A	27 E	PA 8010/8020	
3	Ammonia N	8	Total Diss. P	———— <u> </u>	13	TDS		18	COD		23	EPA 418.1	28 E	PA 8080 Pest/PCI	В
4	Nitrite N	9	BOD,	<del></del>   -	14	Turbidity	.	19	BTEX	)	24	EPA 608 Pest/PCB			
5	Nitrate N	10	Alkalinity		15	Conductiv	ity	20	EPA 600/602		2.5	EPA 8240			
29 30	TCLP (Specify: volatiles, se Other (Specify):	ato-votaciles	, mecals, pesucides, a	ieroicides)			· · · · · · · · · · · · · · · · · · ·						• • • •		
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32 James Brown Drive Williston, Vermont 05495 (802) 879-4333 FAX 879-7103

#### REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International

PROJECT NAME: Allen Residence

REPORT DATE: December 13, 1996 DATE SAMPLED: December 12, 1996 PROJECT CODE: GIAR1308

REF.#: 97,848 - 97,849

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D. Laboratory Director

enclosures

32 James Brown Drive Williston, Vermont 05495 (802) 879-4333 FAX 879-7103

#### EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International

DATE RECEIVED: December 13, 1996

PROJECT NAME: Allen Residence

REPORT DATE: December 13, 1996

CLIENT PROJ. #: 12964964

PROJECT CODE: GIAR1308

Ref. #:	97,848	97,849	<u> </u>	:	T
Site:	Trip Blank	Rice Residence	1		
Date Sampled:	12/12/96	12/12/96			
Time Sampled:	8:13	14:55	•		İ
Sampler:	E. Sandblom	E. Sandblom			
Date Analyzed:	12/13/96	12/13/96			
UIP Count:	0	0			
Dil. Factor (%):	100	100			
Surr % Rec. (%):	93	92			
Parameter	Conc. (ug/L)	Conc. (ug/L)			
Benzene	<1	<1			
Chlorobenzene	<1	<1			
1,2-Dichlorobenzene	<1	<1			•
1,3-Dichlorobenzene	<1	<1			
1,4-Dichlorobenzene	<1	<1			
Ethylbenzene	<1	<1			
Toluene	1.1	<1	ŀ	1	
Xylenes	<1	<1			
MTBE	<10	<10			

Note: UIP = Unidentified Peaks TBQ = Trace Below Quantitation NI = Not Indicated

32 James Brown Drive Williston, Vermont 05495 (802) 879-4333

#### CHAIN-OF-CUSTODY RECORD

Project Name: Hen Resident Reporting Address: Site Location: East St. Do New York State Project Number:  Received by: Signature  Received by: Signatur		(802) 879-4333	<u> 2961</u>	49121											
Endyne Project Number:  GIAR 308  Company: Griffing  Sample Contact Number #: E. Sandboth  Sample Contact Number #: E. Sandboth  Sample Contact Number #: E. Sandboth  Sample Contact Number #: E. Sandboth  Sample Contact Number #: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact Number *: Sample Contact N	Project	t Name: HIEN P	eside	ence	R	:eporti					Billir	ng Address:			
Received by: Signature Accepted by: Signature	Site Lo	xeation: East 54	<u>صلہ -</u>	U DEDOLA			<u>Gr</u>	ikkin							
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1   PH   6   TN   11   Total Solids   16   Media (Specify)   21   EPA 205   RPA 18.1   19   19   10   10   10   10   10   1	Lab	# Samj	ple Local	ion	Matrix	R	O M	Date/Time	300000000		Field Res	sults/Remarks	100 00 00 00 00 00 00 00 00 00 00 00 00		Rush
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New York State Project: Yes No   Yes No   New York State Project: Yes No   Yes	Relinqu	ished by: Signature	<u> </u>	, , , , , , , , ,						Ben	Date/I	Fime 12/13/5			AIM
2         Chloride         7         Total P         12         TSS         17         Coliform (Specify)         22         EPA 625 B/N or A         27         EPA 8010/8020           3         Armmonia N         8         Total Diss. P         13         TDS         18         COD         23         EPA 418.1         28         EPA 8080 Pest/PCB           4         Nitrite N         9         BOD,         14         Turbidity         19         BTEX         24         EPA 608 Pest/PCB           5         Nitrate N         10         Alkalinity         15         Conductivity         20         EPA 601/622         25         EPA 8240           29         TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)         TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)         TCLP (Specify: volatiles, semi-volatiles, metals, pesticides)	New Yor	k State Project: Yes _	No	X				Requested /	Analy	ses					
3 Ammonia N 8 Total Diss. P 13 TDS 18 COD 23 EPA 418.1 28 EPA 8080 Pest/PCB 4 Nitrite N 9 BOD, 14 Turbidity 19 BTEX 24 EPA 608 Pest/PCB 5 Nitrate N 10 Alkalinity 15 Conductivity 20 EPA 601/802 25 EPA 8240 29 TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)	1	pH	6	TKN		11	Total Soli	ds	16	Metals (Specify)	21	EPA 624	26 E	PA 8270 B/N or .	Acid
4 Nitrite N 9 BOD, 14 Turbidity 19 BTEX 24 EPA 608 Pest/PCB 5 Nitrate N 10 Alkalinity 15 Conductivity 20 EPA 601/612 25 EPA 8240 29 TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)	11			<u> </u>							<del></del>		<b> </b>		
5 Nitrate N 10 Alkalinity 15 Conductivity 20 EPA 601/602 25 EPA 8240 29 TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)	I <del>}</del> I					<del></del>				<del> </del>	<del>   · · · · - </del>		28 E	PA 8080 Pest/PC	.B
29 TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)	<b>-</b>	<b></b>		<del></del>			<u> </u>	· · · · · · · · · · · · · · · · · · ·			···				
	1		Щ	<u> </u>	nerbicides)	<u></u>		<u>, II</u>				EFA OPIV		<del></del>	
1 30 Cther (Specify):	30	Other (Specify):		· · · · · · · · · · · · · · · · · · ·						·					· ·

32 James Brown Drive Williston, Vermont 05495 (802) 879-4333 FAX 879-7103

#### REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International

PROJECT NAME: Allen Residence REPORT DATE: January 23, 1997 DATE SAMPLED: January 15, 1997 PROJECT CODE: GIAR1732

REF.#: 98,918 - 98,923

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D. Laboratory Director

enclosures

32 James Brown Drive Williston, Vermont 05495 (802) 879-4333 FAX 879-7103

#### EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International

DATE RECEIVED: January 16, 1997

PROJECT NAME: Allen Residence

REPORT DATE: January 23, 1997

CLIENT PROJ. #: NI

PROJECT CODE: GIAR1732

Ref. #:	98,918	98,919	98,920	98,921	98,922
Site:	Trip Blank	Ferrin Res	Brisson Res	Rice Res	Conly Res
Date Sampled:	1/15/97	1/15/97	1/15/97	1/15/97	1/15/97
Time Sampled:	8:04	11:29	11:36	11:46	11:55
Sampler:	E. Sandblom	E. Sandblom	E. Sandblom	E. Sandblom	E. Sandblom
Date Analyzed:	1/22/97	1/22/97	1/22/97	1/22/97	1/22/97
UIP Count:	0	0	0	0	0
Dil. Factor (%):	100	100	100	100	100
Surr % Rec. (%):	93	93	92	92	90
Parameter	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)
Benzene	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1
Toluene	<1	<1	<1	<1	<1
Xylenes	<1	<1	</td <td>&lt;1</td> <td>&lt;1</td>	<1	<1
MTBE	<10	<10	<10	<10	<10

Ref. #:	98,923		; <del>-</del> -	
Site:	Allen Res			
Date Sampled:	1/15/97			
Time Sampled:	14:16			
Sampler:	E. Sandblom			
Date Analyzed:	1/22/97			
UIP Count:	0			•
Dil. Factor (%):	100			
Surr % Rec. (%):	93			 
Parameter	Conc. (ug/L)			
Benzene	<1			
Chlorobenzene	<1			
1,2-Dichlorobenzene	<1			
1,3-Dichlorobenzene	<1			
1,4-Dichlorobenzene	<1			
Ethylbenzene	<1			
Toluene	<1	:		
Xylenes	<1			
мтве	<10			

Note: UIP = Unidentified Peaks TBQ = Trace Below Quantitation NI = Not Indicated



32 James Brown Drive Williston, Vermont 05495 (802) 879-4333

## CHAIN-OF-CUSTODY RECORD

	Project Name: ALLEN Reporting Address:    Billing Address:   Billing A																	
Site L	ocation:	FAST S	ST. 1	OHVISBO	24	Repor		lrèss: 1FFIM				j	Billi	ng Address: GR/FF/M	,			
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Lab	#	Samp	ole Local	tion	Matri	x P	C O M P	Date/Time	Sai 7 N	91,04 - 99	Containers Type/Size	F	led Re	ults/Remarks	Anai Requ		Sample Preservation	Rush
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1	рH		6	TKN	····	11	Total Sol	ids	16	М	ctals (Specify)		21	EPA 624	26	EP	A 8270 B/N or A	cid
2	Chloride		7	Total P		12	TSS		17	Co	oliform (Specify)		22	EPA 625 B/N or A	27	_	A 8010/8020	
3	Ammonia i	N	8	Total Diss. P		13	TDS		18	C	OD		23	EPA 418.1	28	EP	A 8080 Pest/PCE	3
4	Nitrite N	· · · ·	9	BOD,		14	Turbidity		19		TEX		24	EPA 608 Pest/PCB				
5	Nitrate N		10	Alkalinity		15	Conducti	vity	20	E	PA 601 602		25	EPA 8240				
29			u-volatile:	, metals, pesticides, h	erbicides)			i										
30	Other (Spe	cuy):																

32 James Brown Drive Williston, Vermont 05495 (802) 879-4333 FAX 879-7103

#### REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International

PROJECT NAME: Allen Residence

REPORT DATE: March 28, 1997 DATE SAMPLED: March 18, 1997 PROJECT CODE: GIAR1395

REF.#: 101,039 - 101,045

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

/4/

Reviewed by,

Harry B. Locker, Ph.D. Laboratory Director

enclosures

32 James Brown Drive Williston, Vermont 05495 (802) 879-4333 FAX 879-7103

#### EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International

DATE RECEIVED: March 19, 1997

PROJECT NAME: Allen Residence

REPORT DATE: March 28, 1997

CLIENT PROJ. #: 12964964

PROJECT CODE: GIAR1395

Ref. #:	101,039	101,040	101,041	101,042	101,043
Site:	Trip Blank	Allen	Brisson	Ferrin	Conly
Date Sampled:	3/17/97	3/18/97	3/18/97	3/18/97	3/18/97
Time Sampled:	15:50	8:12	8:39	8:49	9:04
Sampler:	E. Sandblom	E. Sandblom	E. Sandblom	E. Sandblom	E. Sandblom
Date Analyzed:	3/27/97	3/27/97	3/27/97	3/27/97	3/27/97
UIP Count:	0	0	0	0	0
Dil. Factor (%):	100	100	100	100	100
Surr % Rec. (%):	91	91	94	94	93
Parameter	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)
Benzene	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1
Toluene	<1	<1	<1	<1	<1
Xylenes	<1	<1	<1	<1	<1
мтве	<10	<10	<10	< 10	<10

Ref. #:	101,044	101,045		
Site:	Rice	Sump Effluent		
Date Sampled:	3/18/97	3/18/97		
Time Sampled:	9:45	10:09		
Sampler:	E. Sandblom	E. Sandblom		
Date Analyzed:	3/27/97	3/28/97		
UIP Count:	0	10		
Dil. Factor (%):	100	100		
Surr % Rec. (%):	91	98	 	
Parameter	Conc. (ug/L)	Conc. (ug/L)		
Benzene	<1	<1		
Chlorobenzene	<1	<1		
1,2-Dichlorobenzene	<1	<1		
1,3-Dichlorobenzene	<1	<1		
1,4-Dichtorobenzene	<1	<1		
Ethylbenzene	<1	<1		
Toluene	<1	<1		
Xylenes	<1	1.1		
MTBE	<10	<10		

Note: UIP = Unidentified Peaks TBQ = Trace Below Quantitation NI = Not Indicated

TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)

Other (Specify):

3: W (8	2 James Brown Drive Villiston, Vermont 05495 802) 879-4333	1294	4464		. (	CHAIN	N-OF-CUST	ODY	RECORD	)					
Project Na Site Locat	, 1	Reporting Address:  CEIFFIW						Billing Address:							
Endyne-Project Number: GIAR 1395					Company: GRIFFIW Contact Name/Phone #: E SA-WBLOM					)	Sampler Name: ERIK SAWBOON) Phone #: SUS-UZEK				
Lab#	Samp	de Locat	ion	Matrix	G R A B	C O M P	Date/Time 3/12/97	Samp No.	Type/Size	F	leid Res	ults/Remarks	Analysis Required	Sample Preservation	Rush
101,039	TEIP BK	ML		Hro	X		15:50/3/17/97	12	46m2 G			2	EPAGOR	HU	
101,040	Allen						8112					· · · · · · · · · · · · · · · · · · ·		1	
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Relinquished by: Signature Rece						Received by: Signature					Date/Time 3-19-97 10:20				
New York S	itate Project: Yes	No	<u> </u>				Requested A	Analy	ses						
1 pl	H.	6	TKN		11	Total Solid	ds	16	Metals (Specify)		21	EPA 624	26	EPA 8270 B/N or .	Acid
	hloride	7	Total P		12	TSS		17	Coliform (Specify	y)	22	EPA 625 B/N or A	<del>.     .</del>	EPA 8010/8020	
7.	mmonia N	8	Total Diss. P	$-\!\!\!-\!\!\!\!\parallel$	13	TDS		18	BTEX		23	EPA 418.1	28	EPA 8080 Pest/PC	.13
	litrate N	10	BOD, Alkalinity		14	Turbidity Conductiv		29	EPA 601/602		24 25	EPA 608 Pest/PCB EPA 8240		<del> </del>	
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